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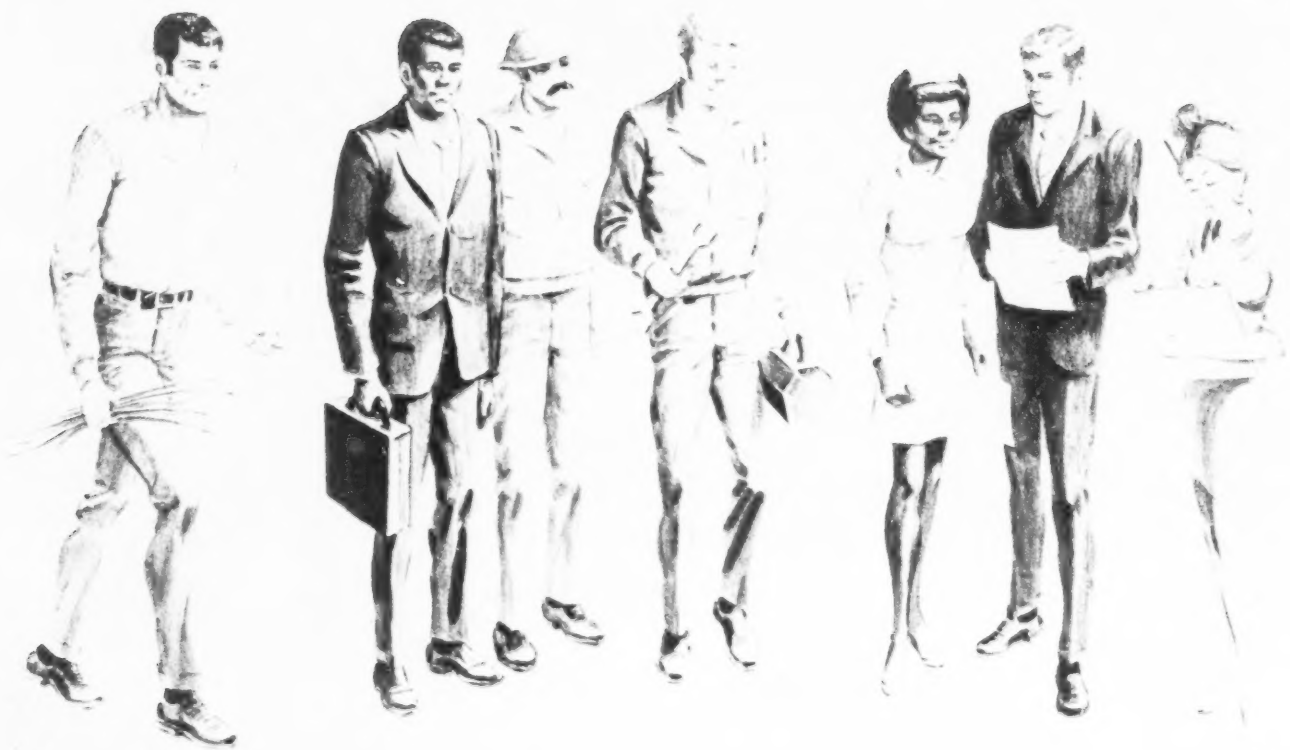
ABSTRACT

These guidelines for the use of labor market information are presented in order to improve program planning for vocational education in Pennsylvania by supplying necessary manpower supply/demand data. Once occupational needs are defined for a specific geographic area, a systems approach to program development can be utilized by vocational training agencies. Numerous tables present the manpower data, which illustrate the supply/demand postures for Pennsylvania in general as well as for 12 major and three smaller labor market areas in the state. A list of references and background information on interpreting the data are included. (AG)

Planning Vocational Education Programs in Pennsylvania

Guidelines For the Use of Labor Market Information



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Planning Vocational Education Programs in Pennsylvania

Guidelines For the Use of Labor Market Information

Research Coordinating Unit
Bureau of Educational Research
Pennsylvania Department of Education

First Edition 1970
Revised 1971

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PREFACE

The Bureau of Vocational, Technical and Continuing Education in Pennsylvania has played a key role in planning, financing and evaluating vocational education programs. This effort was enhanced by the passage of the Vocational Education Act of 1963 and the 1968 Amendments to the Act. With the expansion of programs and services there has been increasing emphasis on effective planning practices.

Expenditures for vocational, technical and continuing education programs have been increasing at the federal, state and local levels. Studies have provided controversial findings as to the effectiveness of vocational education for the graduate in obtaining employment in the civilian labor force. For the most part, this is the primary objective of the vocational education graduate. In many cases this objective is not met because adequate information on manpower supply/demand data was not used in the program planning by the vocational training agency.

Planning can be considered a basic requisite for any program to achieve the objective of gainful employment for the graduate. One approach towards achieving quality in program planning is the use of manpower supply/demand data and its subsequent interface with a systems approach to program planning. Through the definition of occupational needs for a defined geographic area, the vocational training agencies can plan for programs to meet those needs.

This publication is part of the continuing effort of the Research Coordinating Unit and the Administrative and Planning Division of the Pennsylvania Bureau of Vocational, Technical and Continuing Education in providing leadership for the improvement of vocational education program planning.

"An excellent plumber is infinitely more admirable than an incompetent philosopher. The society which scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water." (John W. Gardner)

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CHAPTER ONE

INTRODUCTION

The Vocational Education Act of 1963 and the 1968 Vocational Education Amendments emphasized the importance of using information on current and projected manpower needs and job opportunities for effective vocational education program planning. More recently discussions on the development of career education models are providing impetus for more efficient identification and utilization of occupational needs in curriculum planning.

Pennsylvania's initial efforts in establishing a manpower information data base and a methodology for vocational education program planning began with the Pennsylvania Vocational Education Study (PVES).[1] This study defined a systematic procedure for program planning utilizing a systems approach philosophy and design. One of the primary inputs for this planning was the identification of occupational supply/demand data. A recommendation of that study was to develop occupational supply/demand data for use in local as well as statewide program planning. The methodology defined in PVES was used to update the statewide supply/demand data. Statistics on the 12 major and three selected smaller labor market areas were added to help meet the needs of local program planners. These data were published in Planning Vocational Education Programs in Pennsylvania: Guidelines for the Use of Labor Market Information.[2]

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[1]Walter M. Arnold (ed), Vocational, Technical and Continuing Education in Pennsylvania: A Systems Approach to State-Local Program Planning, Harrisburg, Pennsylvania: Pennsylvania Department of Education, 1969.

[2]J. F. McNamara and S. J. Franchak, Planning Vocational Education Programs in Pennsylvania: Guidelines for the Use of Labor Market Information, Harrisburg, Pennsylvania: Pennsylvania Department of Education, 1970.

The intent of this publication is to update the data found in the publication, Planning Vocational Education Programs in Pennsylvania: Guidelines for the Use of Labor Market Information, 1970 (henceforth, referred to as first edition).

CHAPTER TWO

MANPOWER INFORMATION FOR VOCATIONAL EDUCATION PROGRAM PLANNING IN PENNSYLVANIA

The need for and importance of manpower information for vocational education program planning has been emphasized by many.[1] This chapter will provide the reader with brief background information needed for a detailed examination of the occupational education manpower supply/demand data for Pennsylvania.

This publication will focus on the discussion of three major parts. These include (1) an identification of each training agency in Pennsylvania which was used in the collection of occupationally trained graduates, (2) a brief description about manpower demand projections and (3) a procedure for analyzing the manpower supply/demand information to determine the efficiency of present vocational education programs in satisfying the labor market needs within the state.

For a detailed analysis of the above points of discussion, the reader is encouraged to consult the publications, Pennsylvania Vocational Education Study and the first edition of Planning Vocational Education Programs in Pennsylvania: Guidelines for the Use of Labor Market Information, 1970.

The Supply of Vocational Education Graduates

For the purpose of this publication, an occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. It was assumed that upon graduation that the graduate was immediately available to enter the labor force in the

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[1] Ibid., pp. 1-9.

occupation for which he was trained. However, not all occupational graduates enter occupations for which they were trained and a certain number do not enter the civilian labor force. Some complete military obligations and/or continue their education before entering the civilian labor market. Some women upon graduation become housewives. Possibly a certain number enter the civilian labor force at a later date either part-time or on a full-time basis. Studies by Eninger[2] have provided data relative to selected vocational education graduates at the secondary level and their status relative to labor market entry.

The supply data does not include those whose training was accomplished on-the-job or with a specific employer, including apprenticeship training. Also, no data were included on those individuals already employed who received supplementary training for occupation mobility.

The following nine principal training agencies were identified and used to obtain the quantity and type of vocational education graduates:

- o Public Secondary Vocational and Technical Schools
- o Community Colleges
- o Private Trade and Technical Schools
- o State Trade and Technical Schools
- o Manpower Development Training Programs
- o State Retraining Programs
- o Two-Year Programs in Four-Year Schools
- o Private Junior Colleges
- o Private Business Schools

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[2]Refer to studies by Max Eninger and the VEMIS System of the BVTCE, Pennsylvania.

The Demand for Trained Graduates

The requests for reliable and valid information about future levels of occupational demand have grown rapidly since the passage of the Manpower Development and Training Act of 1962, the Vocational Education Act of 1963 and the 1968 Amendments.

Several types of information are presently provided to vocational educators by various governmental agencies such as the Bureau of Employment Security, Bureau of Labor Statistics, Department of Commerce and subdivisions within these departments at both the federal and state levels. A recent example of efforts at the federal level to provide occupational data for educational planners is found in the publication, Bulletin 1701.[3] However, current labor market demand information has been of limited value for local level vocational education program planners because of (1) insufficient labor market information for the local area or (2) manpower publications which contained only state and national trends. To allow planners to design new programs and program revisions based on local and regional information, this monograph provided demand projections for each of the major LMAs in the Commonwealth. Since the primary intent of this publication is to provide an update of the supply/demand relationships found in the first edition, only a brief description of the forecasting methodology is presented.

It is appropriate at this point to comment on the limitations of the manpower information found in this publication. First, the projections in this study are not designed to be the "final word" on manpower needs. They do not replace sound judgement on the part of the

[3]Occupational Manpower and Training Needs: Information for Planning Training Programs for the 1970's, Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics, 1971, Bulletin 1701.

program planner. Instead, they are designed to improve the knowledge base upon which decisions about vocational education programs are made. Secondly and most important, these data represent only one input into the program planning decision-making structure. Since the tables in the following chapters attempt to assess labor market demands across all types of occupations in the civilian labor force, specific details about any particular occupation (or cluster of occupations) are minimized. For example, demand for medical and dental technicians does not provide a listing of occupational needs for specific technical personnel in this area. An example is the critical shortage of X-ray technicians, radiation therapists, surgical technicians, etc. If the demand forecast indicates a critical shortage of medical and dental technicians in a specific Pennsylvania labor market area and a school wishes to provide a new program in this area, information about individual occupations is necessary. In this case the Hospital Education and Research Foundation of Pennsylvania could provide the planner with more detailed information on manpower demand.[4] Another example of the inadequacy of detailed information is the occupational classification Farm and Farm Workers. This provides only a surface indicator of the manpower demand which would need further clarification through contacting appropriate agencies or the review of publications specific to this area.

It should be clear at this point that demand projections such as those in this study provide a point of departure for the collection of additional planning information needed before development, expansion or curtailment of an occupational program. One source of additional

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[4]Hospital Education and Research Foundation, Pennsylvania Hospital Manpower Demand, 1968. Camp Hill, Pennsylvania: HERF, 1969.

information is the Administrative and Planning Division of the Bureau of Vocational, Technical and Continuing Education (BVTCE) which can provide additional data that focuses on local level information.

Relationship of Manpower Supply and Demand

The methodology for making quantitative projections of supply/demand relationships is subject to considerable error. The limitations should be defined and recognized by the planner. A detailed analysis is provided in the first edition.[5]

Although no one method has been considered as being exceptionally accurate, the statistical projection method developed by the Bureau of Labor Statistics, U.S. Department of Labor was used to make the Pennsylvania projections to 1975.[6] Improvement in the accuracy can be anticipated by the input of 1970 census data. This will provide a source for reevaluation of the withdrawal, growth and projected employment data.

Methodology and Interpretation of the Supply/Demand Postures

Supply/demand postures are defined as the relationship between the supply of occupationally trained graduates and labor market demand.

The reader should refer to Table 1 as he reads the explanation of the methodology and interpretation of the supply/demand postures.

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[5]Refer to pages 22-24.

[6]U.S. Department of Labor, Tomorrow's Manpower Needs: National Manpower Projections and a Guide to Their Use as a Tool in Developing State and Area Manpower Projections, Bureau of Labor Statistics, Bulletin No. 1606, Washington, D.C.: U.S. Government Printing Office, February 1969. The same method was employed in the original Pennsylvania Vocational Education Study.

The entries in Column One of Table 1 are the official 1960 Bureau of Census data reported and published by the U.S. Department of Commerce. The projected 1975 employment figures in Column Two are based on a methodology provided in the U.S. Bureau of Labor Statistics' publication, Tomorrow's Manpower Needs. The methodology was developed using an occupational matrix reflecting changes to 1975 in occupational staffing patterns caused by economic, technological and demographic developments. This methodology was adapted by the Labor Market Information Section, Research and Statistics Division, Pennsylvania Bureau of Employment Security, to the Pennsylvania industrial and occupational structure and to trends in its economy.

The projected 1975 employment figures in Column Two are obtained by multiplying the 1960 state percentage distribution of selected occupations (Census) by the pattern of national change factor to develop the 1975 percentage of occupational density. This percentage, modified in light of the Pennsylvania situation, is then applied to projected total employment in Pennsylvania in 1975. These figures represent net growth for the period 1960-1975 and anticipated employment in these selected occupations in 1975. They do not represent, nor should they be interpreted as representing, total demand or total replacement needs which would be considerably higher than net changes. The estimates in Column Two are on the conservative side assuming a high level of employment. This judgement is upheld by analysts from the Bureau of Employment Security. It must be remembered that these data are to be used only as guides or tools and that the trend is the important factor since numerical accuracy is dependent on many factors some of which are undefined or unknown at this time.

For vocational education program planning purposes, net growth figures are insufficient. Estimates of annual demand are necessary. The figures in Column Five represent this estimated annual demand. These estimates reflect natural growth due to population and economic changes and requirements for replacement necessitated by turnover due to deaths, retirements, promotions, transfers, quits, etc.

There is no direct arithmetical relationship nor was one intended between the projected 1975 employment in Column Two and the annual demand figure in Column Five. They represent two separate entities.

The method used to calculate the annual demand is a straight line projection. Per cent factors for annual withdrawal and annual growth are derived by using guidelines provided in Tomorrow's Manpower Needs. Each of the two factors was applied to the 1960 Census to derive the figures in Columns Three and Four respectively. The sums of figures in these two columns equal the figures in Column Five. For example, in Table 1 the annual withdrawal and growth for draftsmen are 717 and 1,262. Therefore, the annual demand for draftsmen in Column Five of Table 1 is 1,979 which represents the total of these two entries. Since the supply/demand posture is calculated for a four-year period, a four-year demand projection is given in Column Six. This is a linear calculation obtained by multiplying the annual demand by four; therefore, the four-year demand for draftsmen is 7,916. Because of methodological limitations, occupational classifications which require a baccalaureate degree or higher are listed in the annual demand column but are excluded in the four-year demand column. For example, the individual occupations (Dentists, Optometrists, Osteopaths, Pharmacists, Physicians and Surgeons, Psychologists and Veterinarians) under the subclassification Medical, Other Health Workers were not included in determining the four-year demand. If all individual

occupations under the subclassification Medical, Other Health Workers were summed to determine the four-year demand, the total would be 44,700. Since the occupations requiring the baccalaureate and higher degree were excluded in determining the four-year demand, the summation totaled 32,620.

It is possible and may be desirable to generate an annual calculation of data over the four-year period. This is clearly shown in Chapter Three with the supply/demand postures for the Lancaster LMA. The advantage in this presentation of data is the reflection of yearly change in Column Seven and Column Eight.

The supply figures in Column Seven are the number of vocational graduates (those available for labor force entry) from the nine different agencies previously described. Supply figures represent the total number of graduates for the four-year period ending June 30, 1970.

Each entry in Column Seven represents the total number of graduates for the defined occupational category. Statistics on the distribution of supply of graduates by type of training agency for each occupational category can be obtained from the Research Coordinating Unit for Vocational Education, Pennsylvania Department of Education. For a detailed analysis of the type of supply data available, refer to Chapter Five of the first edition.

Column Eight presents the unmet demand for the four-year period. This entry is obtained by subtracting Column Seven, four-year supply, from Column Six, four-year demand. A negative entry in this column indicates that the supply has exceeded the projected demand. Large positive values indicate occupations in which there presently exists a critical shortage of trained graduates for the labor force. However, as stated previously, these estimates are a "first indicator" and additional planning information

should be gathered prior to the development, expansion or curtailment of a particular occupational program. Specifically, localized information should be identified which would validate or invalidate the estimate. For example, the entry or exodus of an industry into or from a labor market area could change the estimate.

The same methodology was used to estimate the supply/demand postures for the 12 major LMAs and three smaller selected LMAs found in Chapter Four.

Limitations of the Data

The reader should read carefully the comments which appear below the last entry in each of the tables. Particular attention should be given to the remarks pertaining to Column Seven. The statement is made indicating that an occupational education graduate is considered as one who completed his training in a less than baccalaureate degree program. The supply column does not include graduates receiving baccalaureate, graduate or professional degrees. Inferences about occupational categories where labor market needs may be satisfied by baccalaureate graduates (i.e., occupations in the Professional, Technical and Kindred categories) should not be made without appropriate information on degrees awarded by four-year colleges and universities and other professional schools.

Summary

Other methods of calculating annual demand could have been adopted. The fact is that no one knows which, if any, methods of calculating projections is the most accurate. This will not be known until sometime in the future when projections can be checked against a new set of actual

figures such as the 1970 Census data or future labor market studies. The principal difficulty in the past has been that no useful manpower projection data have been available in Pennsylvania. It is expected that these data and the methodology used will be rechecked and updated periodically with a view toward continuous improvement in reliability and validity.

As has been previously stated, the data in the supply/demand postures are to be used as guides rather than as absolute "nose" counts. It is hoped that this information (especially Column Eight, the unmet demands) will give some direction to state and local education program planners in regard to relative demands in each of the defined occupational categories. Again attention is directed to the fact that these statistics do not replace judgement on the part of the local program planners. <u>They will need to bias the manpower information provided in this publication with locally developed or known data</u>. For further discussion of the use of supply/demand data in local level program planning, the reader is referred to page 27 of the first edition of this publication.

CHAPTER THREE

A SUPPLY/DEMAND POSTURE FOR PENNSYLVANIA

This chapter presents the supply/demand posture for the Commonwealth. Since an accurate interpretation of this information is dependent on a thorough understanding of the scope and limitations of the data, the reader should review Chapter Two before starting to analyze the data. As the title of Table 1 indicates, the supply/demand posture developed for the Commonwealth covers the supply/demand statistics for the four-year period ending June 30, 1970.

Although these data are dated when considering that they are intended for planning during the year 1972, certain points should be made. One point is that the timeliness of statistics is important; however, data that is late in coming are nonetheless useful for current analysis. Further, the program planning which is discussed in PVES indicates that effective decisions are not or should not be based only on the latest data and/or information but rather on a set of expectations about the evolving situation. Goldberg and Hodgins state, "A solid view on the outlook can be established only by an analysis of the historical record extending over many months or years."[1]

The past performance of the vocational education system in the Commonwealth provides an excellent guideline to evaluate the past and to form a basis for modifying existing programs and developing new ones to meet critical occupational shortages in the labor market. For example, if it is assumed that the current levels of enrollments in all occupational

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[1]S. A. Goldberg and C. D. Hodgins. "Improving Timeliness of Statistics," Monthly Labor Review, October 1971, p. 11.

education programs remain relatively constant, then vocational education planners can be certain that critical occupational shortages documented in Table 1 will persist. A good example lies in the areas of allied health occupations and service occupations. Further if this assumption is true, planners can be equally certain that in specific occupations for which the educational programs of the state appear to be producing a supply of new entrants in excess of the demands of the labor market, the excess will also persist. The statement that if there is a surplus, the prospective employe should move to another geographic region cannot be accepted. It is essential to the economic development of the state that this alternative not be considered as an answer. This could be considered one of the contributing factors to the out-migration of potential labor force participants in many areas of Pennsylvania. For example, an estimated 150,000 persons in the 20 to 24 age group migrated out of the Commonwealth for the decade 1960-1970.[1]

Based on the analysis in Table 1, it can be stated with some confidence that in 1975 Pennsylvania will have about 5,000,000 persons gainfully employed; that approximately 192,000 persons will withdraw from the labor force each year; that 66,000 new job openings will occur each year; that 259,000 job vacancies will exist annually and that the average current annual supply of vocational education graduates is 80,000 (refer to grand totals in Table 1).

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[1]John K. S. Senier, Pennsylvania Population Growth and Net Migration 1960-1970. Harrisburg, Pennsylvania: Pennsylvania Department of Education, 1971, p. 10.

TABLE 1

PENNSYLVANIA MANPOWER AND TRAINING DATA

Statewide Totals
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	4,127,208	5,022,000	192,595	66,561	259,156	971,236	329,864	641,372
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	441,149	710,500	21,219	28,849	50,068	134,904	52,328	82,576
	Engineers, Technical	53,750	96,200	1,405	3,848	6,253	25,012	3,755	21,257
002	Engineers, Aeronautical	723	900	22	36	58	232	413	-181
008	Engineers, Chemical	3,065	4,900	122	205	327	1,308	417	891
005	Engineers, Civil	7,713	12,900	326	516	842	3,368	520	2,848
003	Engineers, Electrical	11,016	20,800	520	804	1,324	5,296	677	4,619
012	Engineers, Industrial	7,528	15,600	390	624	1,014	4,056	37	4,019
007	Engineers, Mechanical	9,838	16,500	412	660	1,072	4,288	309	3,979
011	Engineers, Metallurgical	3,358	5,500	137	242	379	1,516	139	1,377
010	Engineers, Mining	648	500	12	17	29	116	0	116
	Engineers, Sales	4,756	7,100	177	284	461	1,844	34	1,810
	Other Engineers Technical	5,105	11,500	287	460	747	2,988	1,209	1,779
	Natural Scientists	9,122	18,200	455	728	1,183	620	1,064	-444
040	Agricultural Scientists	265	400	100	16	116	464	760	-296
041	Biological Scientists	508	1,300	32	52	84	336	-	-
022	Chemists	6,630	12,700	229	508	737	2,948	-	-
024	Geologists & Geophysicists	320	400	10	16	26	104	-	-
020	Mathematicians	332	900	22	36	58	232	-	-
023	Physicists	896	1,900	47	76	123	492	-	-
	Other Natural Scientists	171	600	15	24	39	156	304	-148
	Technicians Excl. Medical & Dental	31,033	56,000	1,736	2,520	4,256	17,024	11,658	5,366
017	Designers	3,984	7,500	225	300	525	2,100	815	1,285
726	Electrical & Electronic	5,732	10,900	272	545	817	3,268	9,738	-6,470
193	Radio Operators	1,013	1,300	32	39	71	284	73	211
018	Surveyors	1,985	3,300	82	132	214	856	136	720
	Technicians, Other	18,319	33,000	1,125	1,504	2,629	10,516	896	9,620
	Medical, Other Health Workers	90,660	157,400	4,879	6,296	11,175	32,620	6,615	26,005
	Chiropractors & Therapists	3,257	4,900	137	205	342	1,368	12	1,356
072	Dentists	5,873	8,300	207	332	539	2,156	-	-
077	Dietitians & Nutritionists	1,597	2,100	84	94	178	712	288	424
075	Nurses, Professional	40,611	67,600	1,919	2,528	4,447	17,788	1,262	16,526
079	Nurses, Student	7,626	16,600	664	664	1,328	5,312	65	5,247
079	Optometrists	933	1,700	42	68	110	440	-	-
071	Osteopaths	447	1,900	47	76	123	492	-	-
074	Pharmacists	5,869	6,600	165	264	429	1,716	-	-
070	Physicians & Surgeons	15,459	24,000	600	1,008	1,608	6,432	-	-
045	Psychologists	741	2,100	58	88	146	584	-	-
079	Technicians, Medical & Dental	7,762	20,600	931	929	1,860	7,440	4,962	2,478
073	Veterinarians	575	1,000	25	40	65	260	-	-
	Teachers	105,708	149,900	5,696	6,145	11,841	4,400	921	3,479
092	Teachers, Elementary	53,341	62,700	2,836	2,719	5,555	22,220	-	-
091	Teachers, Secondary	33,104	52,500	1,785	2,000	3,785	15,140	-	-
099	Teachers, Other Excl. College	8,951	15,500	480	620	1,100	4,400	921	3,479
090	Teachers, College	10,312	19,200	595	806	1,401	5,604	-	-
	Social Scientists	2,169	3,700	92	148	240	624	70	554
050	Economists	937	1,300	32	52	84	336	-	-
020	Statisticians & Actuaries	1,121	2,200	55	88	143	572	5	-
059	Other Social Scientists	111	200	5	8	13	52	65	-13
	Other Prof., Tech., & Kindred Workers	148,707	229,100	5,956	9,164	15,120	54,604	28,289	26,315
160	Accountants & Auditors	27,920	38,700	967	1,548	2,515	10,060	759	9,301
001	Architects	1,505	2,000	50	100	150	600	235	365
017	Draftsmen	18,407	28,700	717	1,262	1,979	7,916	9,530	-1,614
110	Lawyers & Judges	9,392	12,800	320	512	832	3,328	-	-
166	Personnel & Labor Relation Wkrs.	5,739	9,800	245	392	637	2,548	-	-
195	Social & Welfare Workers (N.E.C.)	5,868	11,000	442	483	925	3,700	71	3,629
	Prof., Tech., Kindred Workers	79,876	126,100	8,215	4,867	8,082	32,328	17,694	14,634
421	FARMERS AND FARM WORKERS	98,764	74,000	2,590	-1,332	1,258	5,032	6,265	-1,233
185	MANAGERS, OFFICIALS & PROPRIETORS	290,385	363,000	9,801	-1,597	8,204	32,816	4,849	27,967
200	CLERICAL & KINDRED WORKERS	591,172	812,500	28,437	19,500	47,937	191,748	172,834	18,914
217	Accounting Clerks & Bkprs.	45,745	56,700	1,814	1,417	3,231	12,924	33,501	-20,577
212	Bank Tellers	8,377	14,200	482	340	822	3,288	27	3,261
211	Cashiers	26,664	50,300	1,911	1,207	3,118	12,472	737	11,735
219	Office Machine Operators	18,846	43,600	1,831	1,308	3,139	12,556	12,274	282
232	Postal Clerks	13,278	13,300	345	319	664	2,656	0	2,656
237	Receptionists	6,809	9,800	392	294	686	2,744	896	1,848
201	Secretaries	91,883	138,500	5,817	4,432	10,249	40,996	55,728	-14,732
222	Shipping & Receiving Clerks	23,727	23,300	605	559	1,164	4,656	342	4,314

TABLE I–CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
202	Stenographers	18,060	27,200	1,142	870	2,012	8,048	6,379	1,669
223	Stock Clerks & Storekeepers	20,921	39,700	1,588	1,191	2,779	11,116	439	10,677
235	Telephone Operators	21,335	22,900	1,030	480	1,510	6,040	221	5,819
203	Typists	31,579	47,000	2,115	1,081	3,196	12,784	16,335	-3,551
209	Other Clerical & Kindred Workers	263,948	326,000	9,365	6,002	15,367	61,468	45,955	15,513
250	SALES WORKERS	306,840	388,700	12,058	4,664	16,722	66,888	14,523	52,365
258	Advertising Agents & Salesmen	1,581	2,300	64	34	98	392	11,260	-10,868
297	Demonstrators	1,272	1,800	57	21	78	312	380	-68
250	Insurance Agents, Brokers & Underwriters.	23,117	28,000	728	33	761	3,044	33	3,011
251	Real Estate Agents & Brokers	7,522	10,400	280	135	415	1,660	-	1,660
259	Stock & Bond Salesmen	1,756	2,500	280	248	528	2,112	-	2,112
	Other Sales Workers (N.E.C.)	271,592	343,700	10,649	4,193	14,842	59,368	2,850	56,518
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	618,288	759,000	21,213	15,204	36,417	145,672	40,105	105,567
	Construction Craftsmen	143,853	168,300	5,486	3,534	9,020	52,668	8,835	43,833
861	Brickmasons, Stone, Tile	14,279	16,500	506	247	753	3,012	606	2,406
860	Carpenters	39,642	42,000	1,616	642	2,258	9,032	2,850	6,182
820	Electricians	23,358	28,500	812	669	1,481	5,924	3,547	2,377
850	Excavating, Grading Oprs.	10,941	11,800	318	518	836	3,344	384	2,960
840	Painters & Paperhangers	20,893	22,500	1,001	450	1,451	5,804	454	5,350
842	Plasters	2,813	4,900	122	24	146	584	8	576
862	Plumbers & Pipefitters	22,887	29,600	799	888	1,687	6,748	704	6,044
866	Roofers & Slaters	3,548	5,700	142	28	170	680	-	680
999	Structural Metal Workers	4,492	6,800	170	68	238	952	282	670
	Foremen, (N.E.C.)	88,132	118,500	2,962	1,185	4,147	16,588	-	16,588
	Metalwkrg. Craftsmen	74,644	77,500	1,937	3,100	5,037	20,120	7,190	12,930
610	Blacksmiths, Forgemen, Hammermen	3,336	2,600	65	26	91	364	6	358
805	Boilermakers	2,382	2,300	52	5	57	228	7	221
504	Heat Treaters, Annealers	2,163	1,800	45	36	81	324	-	324
600	Machinists	41,857	42,000	1,049	2,268	3,317	13,268	5,785	7,483
638	Millwrights	6,074	7,500	187	150	337	1,348	272	1,076
804	Sheet Mtl. Wkrs.	7,808	9,800	245	98	343	1,372	920	452
601	Toolmakers, Diemakers	11,024	11,500	287	517	804	3,216	200	3,016
	Mechanics & Repairmen	151,743	230,400	5,760	5,299	11,059	44,268	18,089	26,179
827	Air Condt. Heating & Refrigmen.	3,724	5,400	135	108	243	972	1,971	-999
621	Airplane	2,558	2,300	57	23	80	320	426	-106
620	Motor Vehicles	43,438	56,000	1,400	1,680	3,080	12,320	10,838	1,482
633	Office Machine Repairmen	1,631	3,700	92	232	324	1,296	261	1,035
720	Radio & TV Repairmen	5,825	9,000	225	180	405	1,620	1,217	403
	Other Mechanics & Repairmen	94,567	154,000	3,851	3,084	6,935	27,740	3,376	24,364
	Printing Trades Craftsmen	21,005	22,000	550	110	660	2,640	1,677	963
650	Compositors & Typesetters	13,314	10,900	272	11	283	1,132	980	152
974-5	Electro & Stereotypers	652	1,000	25	1	26	104	86	18
971-2	Engravers & Lithographers	2,189	3,600	91	47	138	552	73	479
651	Pressmen & Plate Printers	4,850	6,500	162	51	213	852	538	314
	Other Craftsmen & Kindred Workers	138,911	142,300	4,518	1,976	6,494	25,976	4,314	21,662
526	Bakers	9,306	12,500	502	137	639	2,556	235	2,321
660	Cabinetmakers	3,626	3,900	97	58	155	620	1,280	-660
921	Cranesmen, Derrickmen, Hoistmen	19,721	26,000	650	442	1,092	4,368	0	4,368
168	Inspectors	11,239	16,400	410	164	574	2,296	88	2,208
700	Jewelers, Watchmkrs, Gold & Silversmiths	1,782	2,200	55	22	77	308	149	159
821	Linemen & Servicemen	16,391	21,300	534	319	853	3,412	183	3,229
628	Loom Fixers	1,205	1,100	27	5	32	128	0	128
711	Opticians, Lens Grinders & Polishers	1,364	2,100	52	12	64	256	16	240
777	Pattern & Model Mkrs., Except Paper	3,602	5,000	125	50	175	700	409	291
950	Stationary Engineers	19,444	20,500	512	102	614	2,456	48	2,408
780	Upholsters	2,916	4,400	110	66	176	704	306	398
	Craftsmen (N.E.C.)	48,315	26,900	1,444	597	2,043	8,172	1,600	6,572
	OPERATIVES & KINDRED WORKERS	935,328	1,073,000	51,655	-9,442	42,213	168,852	20,337	148,515
	Apprentices	5,741	7,000	140	280	420	1,680	0	1,680
739	Assemblers	33,968	40,500	1,215	810	2,025	8,100	1	8,099
720	Checkers, Examiners & Inspectors, Mfg.	37,695	52,500	1,575	1,837	3,412	13,648	1,483	12,165
906	Deliverymen, Routemen, Cab Drivers	36,120	50,800	1,422	1,016	2,438	9,752	0	9,752
502	Furnacemen, Smeltermen & Pourers	9,237	8,300	207	-83	124	496	0	496
504	Heaters, Metal	2,083	2,600	65	-26	39	156	5	151
361	Laundry & Dry Cleaning	20,732	24,200	968	605	1,573	6,292	32	6,260
939	Mine Operatives, Mine Laborers (N.E.C.)	35,068	20,000	700	-450	300	1,200	159	1,041
316	Meat Cutters, Exc. Slaughter & Paking House	11,688	15,900	397	477	874	3,496	383	3,113
952	Power Station Operators	2,100	2,800	70	-28	42	168	104	64
904	Truck & Tractor Drivers	101,221	128,000	3,200	5,120	8,320	33,280	704	32,576
819	Welders & Flame Cutters	34,761	46,000	1,150	1,380	2,530	10,120	4,050	6,070
	Semiskilled Textile Occup.	93,679	95,900	4,795	-1,918	2,877	11,508	10,079	1,429

TABLE 1-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
685	Knitters, Loopers, Toppers	5,011	3,342	133	-33	100	400	943	-543
689	Sewers & Stitchers, Mfg.	82,342	88,585	4,504	-1,847	2,657	10,628	9,114	1,514
682	Spinners, Textile	1,175	1,693	67	-16	51	204	8	196
683	Weavers, Textile	5,149	2,280	91	-22	69	276	14	262
	Other Operatives (N.E.C.)	511,235	578,500	35,751	-18,512	17,239	68,956	3,331	65,625
	SERVICE WORKERS, PRIVATE HOUSEHOLD	76,349	93,500	3,646	187	3,833	15,332	99	15,233
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	338,952	515,000	36,100	17,102	53,202	212,808	18,524	194,284
	Protective Service Workers	43,329	71,000	2,250	2,534	4,784	19,136	128	19,008
373	Firemen, Fire Protection	6,427	10,700	367	260	627	2,508	6	2,502
375	Policemen, Marshals	17,514	35,800	1,171	1,584	2,755	11,020	122	10,898
379	Guards, Watchmen	19,388	24,500	712	690	1,402	5,608	-	5,608
	Waiters, Cooks & Bartenders	126,813	190,700	21,009	6,654	27,663	110,652	2,643	108,009
312	Bartenders	18,086	26,200	786	707	1,493	5,972	163	5,809
314	Cooks	28,029	39,700	2,191	1,794	3,985	15,940	2,467	13,473
317	Counter & Fountain Workers	10,478	20,000	1,000	800	1,800	7,200	13	7,187
311	Kitchen Workers (N.E.C.)	19,492	28,500	5,928	427	6,355	25,420	41	25,379
311	Waiters & Waitresses	50,728	76,300	11,104	2,925	14,030	56,120	108	56,012
	Other Service Workers	168,810	190,800	10,766	5,589	16,335	65,420	14,051	51,369
355	Attendants, Hospital & Inst.	21,243	46,600	2,796	2,097	4,893	19,572	4,456	15,116
330	Barbers	11,126	16,800	420	168	588	2,352	109	2,243
381	Charwomen & Cleaners	16,573	24,400	1,220	244	1,464	5,856	39	5,817
332	Hairdressers & Cosmetologists	18,673	30,000	1,800	900	2,700	10,800	2,451	8,349
382	Janitors & Sextons	39,001	44,000	3,080	440	3,520	14,080	100	13,980
075	Practical Nurses	13,125	29,000	1,450	1,740	3,190	12,760	6,896	5,864
	Other Service Workers (N.E.C.)	46,069	62,500	2,075	2,325	4,400	17,600	1,553	16,047
	LABORERS, EXCLUDING FARM & MINE	239,974	232,800	5,870	-6,574	-704	-2,816	-	-2,816
	OCCUPATIONS NOT REPORTED	190,007							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

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CHAPTER FOUR

SUPPLY/DEMAND POSTURES FOR THE TWELVE MAJOR AND THREE SELECTED SMALLER LABOR MARKET AREAS OF PENNSYLVANIA

This chapter contains the supply/demand postures for the 12 major and three selected smaller labor market areas in the Commonwealth. Again, the reader is encouraged to acquaint himself with the methodology and/or procedures used in developing the postures. An accurate interpretation of this information is dependent on a thorough understanding of the scope and limitations of the data.

The format of the supply/demand postures for each major labor market are the same as the format used in Table 1 which contains the statewide posture. The program planner should pay careful attention to the footnotes included in each table following the last entry. Included in these notes is a listing of the counties contained in each labor market area. Also, definition is given of the type of vocational education program graduate entered in Column Seven. It is reemphasized that the supply column <u>does not</u> include graduates receiving baccalaureate, graduate and professional degrees.

Using the grand totals found in each table in this chapter, conclusions can be formulated for each major and selected smaller labor market areas. For example, using Table 2, it can be stated with some confidence that in 1975 the Allentown-Bethlehem-Easton Labor Market Area will have about 210,000 persons gainfully employed; that approximately 7,600 persons will withdraw from the labor force each year; that approximately 10,300 job vacancies will exist annually and the average current annual supply of vocational education graduates is 3,400. The statistics used to draw

these conclusions can be found in Columns Two through Seven of the grand totals in Table 2. Using Tables 3 through 15 similar statements could be made for each labor market area.

TABLE 2

PENNSYLVANIA MANPOWER AND TRAINING DATA

Allentown-Bethlehem-Easton Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS[1] 1960 (1)	PROJECTED EMPLOYMENT[1] 1975 (2)	ANNUAL WITH-DRAWAL[2] (3)	ANNUAL GROWTH[2] (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND[3] (6)	4 YEAR SUPPLY[4] (7)	UNMET DEMAND (8)
	GRAND TOTAL	173,379	210,000	7,647	2,661	10,308	38,804	13,643	25,161
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	16,962	26,860	776	1,072	1,848	4,964	3,031	1,933
	Engineers, Technical	2,174	3,770	93	150	243	972	351	621
002	Engineers, Aeronautical	3	5	0	0	0	0	0	0
008	Engineers, Chemical	162	260	6	10	16	64	32	32
005	Engineers, Civil	358	590	14	23	37	148	56	92
003	Engineers, Electrical	322	570	13	24	37	148	199	-51
012	Engineers, Industrial	280	570	13	22	35	140	0	140
007	Engineers, Mechanical	505	830	20	32	52	208	20	188
011	Engineers, Metallurgical	230	410	10	17	28	112	19	93
010	Engineers, Mining	15	20	0	0	0	0	-	-
	Engineers, Sales	139	248	3	6	9	36	0	36
	Other Engineers Technical	160	328	8	13	21	84	25	59
	Natural Scientists	398	745	18	29	47	0	8	-8
040	Agricultural Scientists	13	25	0	0	0	0	8	-8
041	Biological Scientists	7	20	0	0	0	0	-	-
022	Chemists	329	620	12	24	36	144	-	-
024	Geologists & Geophysicists	19	25	0	0	0	0	-	-
020	Mathematicians	0	5	0	0	0	0	-	-
023	Physicists	12	28	0	0	0	0	-	-
	Other Natural Scientists	18	22	0	0	0	0	0	-
	Technicians Excl. Medical & Dental	1,192	1,880	57	84	141	564	733	-169
017	Designers	164	280	7	10	17	68	0	68
726	Electrical & Electronic	141	260	5	12	17	68	684	-616
193	Radio Operators	46	70	1	1	1	4	0	4
018	Surveyors	55	95	2	3	5	20	0	20
	Technicians, Other	786	1,175	39	54	93	372	49	323
	Medical, Other Health Workers	3,391	6,610	204	263	467	1,392	238	1,154
	Chiropractors & Therapists	142	380	10	15	25	100	-	100
072	Dentists	189	310	7	12	19	76	-	-
077	Dietitians & Nutritionists	45	65	1	2	3	12	0	12
075	Nurses, Professional	1,686	3,100	86	114	200	800	18	782
079	Nurses, Student	238	550	22	22	44	176	0	176
079	Optometrists	25	80	2	2	4	16	-	-
071	Osteopaths	16	90	1	3	4	16	-	-
074	Pharmacists	174	200	4	7	11	44	-	-
070	Physicians & Surgeons	545	905	22	37	59	236	-	-
045	Psychologists	25	55	0	1	1	4	-	-
079	Technicians, Medical & Dental	302	850	38	38	76	304	220	84
073	Veterinarians	4	25	0	0	0	0	-	-
	Teachers	4,144	6,210	216	310	526	168	23	145
092	Teachers, Elementary	1,999	2,450	92	100	192	768	-	-
091	Teachers, Secondary	1,257	2,150	72	81	153	612	-	-
099	Teachers, Other Excl. College	308	610	18	24	42	168	23	145
090	Teachers, College	580	1,000	30	40	70	280	-	-
	Social Scientists	68	100	2	3	5	0	-	-
050	Economists	50	65	1	2	3	12	-	-
020	Statisticians & Actuaries	14	25	0	0	0	0	-	-
059	Other Social Scientists	4	10	0	0	0	0	-	-
	Other Prof., Tech., & Kindred Workers	5,618	7,545	195	301	496	1,784	1,678	306
160	Accountants & Auditors	938	1,280	31	51	82	328	93	235
001	Architects	31	55	0	2	2	8	0	8
017	Draftsmen	1,060	1,630	40	70	110	440	504	-64
110	Lawyers & Judges	336	440	10	17	27	108	-	-
165	Personnel & Labor Relation Wkrs.	181	360	9	14	23	92	-	-
195	Social & Welfare Workers (N.E.C.)	171	400	14	17	31	124	0	0
	Prof., Tech., Kindred Workers	2,901	3,380	86	130	216	864	1,081	-217
421	FARMERS AND FARM WORKERS	2,750	1,820	63	-32	31	124	76	48
185	MANAGERS, OFFICIALS & PROPRIETORS	10,999	13,490	363	-53	310	1,240	213	1,027
200	CLERICAL & KINDRED WORKERS	22,256	29,360	1,026	703	1,729	6,916	7,007	-91
217	Accounting Clerks & Bkprs.	1,789	2,100	64	52	116	464	1,666	-1,202
212	Bank Tellers	294	510	16	11	27	108	0	108
211	Cashiers	931	1,660	62	39	101	404	0	404
219	Office Machine Operators	525	1,160	48	34	82	328	550	-222
232	Postal Clerks	356	340	7	7	14	56	0	56
237	Receptionists	247	350	14	10	24	96	46	50
201	Secretaries	3,243	4,580	192	145	337	1,348	2,282	-934
222	Shipping & Receiving Clerks	1,055	1,000	25	23	48	192	0	192

TABLE 2-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
202	Stenographers	287	1,030	42	32	74	296	202	94
223	Stock Clerks & Storekeepers	748	1,380	54	40	94	376	5	371
235	Telephone Operators	813	380	37	16	53	212	0	212
203	Typists	1,017	1,420	63	32	95	380	580	-200
209	Other Clerical & Kindred Workers	10,520	13,000	376	233	609	2,436	1,674	762
250	SALES WORKERS	12,032	14,860	460	178	638	2,552	397	2,155
258	Advertising Agents & Salesmen	56	80	1	0	1	4	310	-306
297	Demonstrators	76	100	2	0	2	8	11	-3
250	Insurance Agents, Brokers & Underwrters.	771	990	24	11	35	140	0	140
251	Real Estate Agents & Brokers	271	360	8	3	11	44	0	44
259	Stock & Bond Salesmen	52	75	0	0	0	0	0	0
	Other Sales Workers (N.E.C.)	10,806	13,255	410	158	568	2,272	76	2,196
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	27,069	33,180	928	663	1,591	6,364	1,396	4,968
	Construction Craftsmen	5,879	6,760	222	141	363	1,452	414	1,038
861	Brickmasons, Stone, Tile	653	710	35	10	45	180	78	102
860	Carpenters	1,625	1,640	50	24	74	296	154	142
820	Electricians	1,080	1,270	35	29	64	256	108	142
850	Excavating, Grading Oprs.	345	530	14	23	37	148	1	147
840	Painters & Paperhangers	900	930	41	18	59	236	19	217
842	Plasters	93	120	2	0	2	8	0	8
862	Plumbers & Pipefitters	784	980	26	28	54	216	54	162
866	Roofers & Slaters	188	280	7	0	7	28	0	28
999	Structural Metal Workers	211	300	7	2	9	36	0	36
	Foremen, (N.E.C.)	3,861	5,200	130	52	182	728	0	728
	Metalwkrg. Craftsmen	2,818	3,030	75	121	196	784	287	497
610	Blacksmiths, Forgemen, Hammermen	193	170	4	8	12	48	0	48
805	Boilermakers	32	40	0	0	0	0	0	0
504	Heat Treaters, Annealers	140	150	3	0	3	12	0	12
600	Machinists	1,724	1,760	44	34	78	312	254	58
638	Millwrights	124	190	4	3	7	28	0	28
804	Sheet Mtl. Wkrs.	310	400	9	3	12	48	33	15
601	Toolmakers, Diemakers	293	320	8	14	22	88	0	88
	Mechanics & Repairmen	6,742	10,350	258	237	495	1,980	489	1,491
827	Air Condt. Heating & Refrigmen.	186	240	5	4	9	36	0	36
621	Airplane	25	35	0	0	0	0	0	0
620	Motor Vehicles	1,800	2,340	58	70	128	512	379	133
633	Office Machine Repairmen	65	140	3	7	10	40	0	40
720	Radio & TV Repairmen	180	250	5	4	9	36	53	-17
	Other Mechanics & Repairmen	4,486	7,345	175	102	277	1,108	57	1,051
	Printing Trades Craftsmen	1,013	1,010	24	4	28	112	78	34
650	Compositors & Typesetters	688	550	13	0	13	52	60	-12
974-5	Electro & Stereotypers	12	18	0	0	0	0	0	0
971-2	Engravers & Lithographers	118	200	4	4	8	32	0	32
651	Pressmen & Plate Printers	195	242	6	0	6	24	18	6
	Other Craftsmen & Kindred Workers	6,511	6,830	163	95	258	1,032	128	904
526	Bakers	329	420	9	4	13	52	12	40
660	Cabinetmakers	125	150	3	2	5	20	79	-59
921	Cranesmen, Derrickmen, Hoistmen	1,342	1,910	49	33	82	328	0	328
168	Inspectors	541	820	20	7	27	108	0	108
700	Jewelers, Watchmkrs, Gold & Silversmiths	72	90	2	0	2	8	0	8
821	Linemen & Servicemen	628	780	19	11	30	120	0	120
628	Loom Fixers	118	105	2	0	2	8	0	8
711	Opticians, Lens Grinders & Polishers	44	65	0	0	0	0	0	0
777	Pattern & Model Mkrs., Except Paper	217	280	6	2	8	32	0	32
950	Stationary Engineers	681	710	17	2	19	76	0	76
780	Upholsters	83	130	2	1	3	12	0	12
	Craftsmen (N.E.C.)	2,331	1,370	73	29	102	408	37	371
	OPERATIVES & KINDRED WORKERS	50,211	57,840	1,734	-520	1,214	4,856	868	3,988
	Apprentices	163	190	4	7	11	44	0	44
739	Assemblers	2,586	2,880	86	-215	-129	-516	0	-516
720	Checkers, Examiners & Inspectors, Mfg.	1,755	2,580	81	25	106	424	0	424
906	Deliverymen, Routemen, Cab Drivers	1,500	1,890	52	18	70	280	0	280
502	Furnacemen, Smeltermen & Pourers	546	510	12	-4	8	32	0	32
504	Heaters, Metal	187	240	6	0	6	24	0	24
361	Laundry & Dry Cleaning	913	960	48	11	59	236	0	236
939	Mine Operatives, Mine Laborers (N.E.C.)	421	470	11	0	11	44	0	44
316	Meat Cutters, Exc. Slaughter & Paking House	522	520	12	2	14	56	0	56
952	Power Station Operators	141	180	4	0	4	16	0	16
904	Truck & Tractor Drivers	4,482	5,750	143	115	258	1,032	247	785
819	Welders & Flame Cutters	1,219	1,580	39	31	70	280	105	175
	Semiskilled Textile Occup.	10,574	12,050	602	-23	579	2,316	369	1,947

TABLE 2-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
685	Knitters, Loopers, Toppers	287	372	14	0	14	56	0	56
689	Sewers & Stitchers, Mfg.	9,581	11,150	446	-10	436	184	369	-185
682	Spinners, Textile	78	68	2	0	2	1,744	0	1,744
683	Weavers, Textile	627	460	46	0	46	8	0	8
	Other Operatives (N.E.C.)	25,883	28,040	1,738	-84	1,654	6,616	147	6,649
	SERVICE WORKERS, PRIVATE HOUSEHOLD	2,181	2,390	661	285	946	3,784	0	3,784
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	13,186	19,750	1,381	651	2,032	8,128	655	7,473
	Protective Service Workers	1,472	2,180	89	71	150	600	0	600
373	Firemen, Fire Protection	182	270	8	5	13	52	0	52
375	Policemen, Marshals	523	950	31	41	72	288	0	288
379	Guards, Watchmen	767	960	27	26	53	212	0	212
	Waiters, Cooks & Bartenders	5,150	8,700	947	304	1,251	5,004	28	4,976
312	Bartenders	755	1,780	53	47	100	400	0	400
314	Cooks	1,068	1,630	89	72	161	644	28	616
317	Counter & Fountain Workers	1,990	890	44	35	79	316	0	316
311	Kitchen Workers (N.E.C.)	442	1,480	67	55	122	488	0	488
311	Waiters & Waitresses	1,895	2,920	61	43	104	416	0	416
	Other Service Workers	6,353	8,870	372	194	566	2,264	627	1,637
355	Attendants, Hospital & Inst.	669	1,740	104	78	182	728	108	620
330	Barbers	466	700	17	7	24	96	6	90
381	Charwomen & Cleaners	724	1,010	50	9	59	236	0	236
332	Hairdressers & Cosmetologists	706	1,260	75	37	112	448	14	434
382	Janitors & Sextons	1,789	2,030	141	19	160	640	0	640
075	Practical Nurses	382	1,020	50	61	111	444	499	-55
	Other Service Workers (N.E.C.)	1,617	1,110	36	40	76	304	0	304
	LABORERS, EXCLUDING FARM & MINE	10,750	10,250	255	-286	-31	-124	-	-124
	OCCUPATIONS NOT REPORTED	4,983							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Allentown-Bethlehem-Easton Labor Market Area includes the following counties: Lehigh and Northampton.

TABLE 3

PENNSYLVANIA MANPOWER AND TRAINING DATA

Altoona Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	46,176	53,200	1,803	608	2,411	9,015	4,553	4,462
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	3,938	5,600	162	224	386	915	710	205
	Engineers, Technical	285	430	11	18	29	116	0	116
002	Engineers, Aeronautical	0	0	0	0	0	0	0	0
008	Engineers, Chemical	16	20	0	0	0	0	0	0
005	Engineers, Civil	76	110	2	4	6	24	0	24
003	Engineers, Electrical	77	130	3	5	8	32	0	32
012	Engineers, Industrial	34	60	1	2	3	12	0	12
007	Engineers, Mechanical	39	60	1	2	3	12	0	12
011	Engineers, Metallurgical	4	5	0	0	0	0	0	0
010	Engineers, Mining	8	10	0	0	0	0	0	0
	Engineers, Sales	8	10	0	0	0	0	0	0
	Other Engineers Technical	23	45	1	1	2	8	0	8
	Natural Scientists	61	110	2	4	6	0	22	-22
040	Agricultural Scientists	0	0	0	0	0	0	18	-18
041	Biological Scientists	0	0	0	0	0	0	-	-
022	Chemists	57	95	1	3	4	16	-	-
024	Geologists & Geophysicists	0	0	0	0	0	0	-	-
020	Mathematicians	4	5	0	0	0	0	-	-
023	Physicists	0	0	0	0	0	0	-	-
	Other Natural Scientists	0	10	0	0	0	0	4	-4
	Technicians Excl. Medical & Dental	196	340	10	15	25	100	282	-182
017	Designers	12	20	0	0	0	0	0	0
726	Electrical & Electronic	51	90	2	4	6	24	234	-210
193	Radio Operators	4	5	0	0	0	0	0	0
018	Surveyors	31	45	1	1	2	8	0	8
	Technicians, Other	98	180	4	5	9	36	48	-12
	Medical, Other Health Workers	983	1,740	53	69	122	392	14	378
	Chiropractors & Therapists	36	75	2	3	5	20	0	20
072	Dentists	59	70	1	2	3	12	-	-
077	Dietitians & Nutritionists	16	20	0	0	0	0	0	0
075	Nurses, Professional	555	950	26	35	61	244	0	244
079	Nurses, Student	98	200	8	8	16	64	0	64
079	Optometrists	13	20	0	0	0	0	-	-
071	Osteopaths	4	10	0	0	0	0	-	-
074	Pharmacists	29	35	0	1	1	4	-	-
070	Physicians & Surgeons	109	180	4	7	11	44	-	-
045	Psychologists	8	15	0	0	0	0	-	-
079	Technicians, Medical & Dental	56	160	8	8	16	64	14	50
073	Veterinarians	0	5	0	0	0	0	-	-
	Teachers	1,249	1,760	61	88	149	44	0	44
092	Teachers, Elementary	688	820	31	33	64	256	-	-
091	Teachers, Secondary	421	690	23	26	49	196	-	-
099	Teachers, Other Excl. College	104	170	5	6	11	44	0	44
090	Teachers, College	36	80	2	3	5	20	-	-
	Social Scientists	6	10	0	0	0	0	-	-
050	Economists	3	5	0	0	0	0	-	-
020	Statisticians & Actuaries	3	5	0	0	0	0	-	-
059	Other Social Scientists	0	0	0	0	0	0	-	-
	Other Prof., Tech., & Kindred Workers	1,158	1,190	30	47	77	276	392	-129
160	Accountants & Auditors	128	160	4	6	10	40	28	12
001	Architects	16	20	0	0	0	0	0	0
017	Draftsmen	98	140	3	6	9	39	248	-209
110	Lawyers & Judges	63	70	1	2	3	12	-	-
166	Personnel & Labor Relation Wkrs.	56	90	2	3	5	20	-	-
195	Social & Welfare Workers (N.E.C.)	82	150	5	6	11	44	22	22
	Prof., Tech., Kindred Workers	715	560	14	21	35	140	94	46
421	FARMERS AND FARM WORKERS	843	700	24	-12	12	48	247	-199
185	MANAGERS, OFFICIALS & PROPRIETORS	3,317	3,800	102	-15	87	348	24	324
200	CLERICAL & KINDRED WORKERS	5,279	6,800	238	163	401	1,604	1,950	-346
217	Accounting Clerks & Bkprs.	437	500	15	12	27	108	274	-166
212	Bank Tellers	91	150	5	3	8	32	0	32
211	Cashiers	321	560	21	13	34	136	0	136
219	Office Machine Operators	116	250	10	7	17	68	304	-236
232	Postal Clerks	119	100	2	2	4	16	0	16
237	Receptionists	52	70	2	2	4	16	0	16
201	Secretaries	827	1,140	47	36	83	332	512	-180
222	Shipping & Receiving Clerks	273	250	6	6	12	48	0	48

TABLE 3-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960	PROJECTED EMPLOYMENT 1/ 1975	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND	4 YEAR DEMAND 3/	4 YEAR SUPPLY 4/	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
202	Stenographers	153	220	9	7	16	64	118	-54
223	Stock Clerks & Storekeepers	163	200	8	6	14	56	29	27
235	Telephone Operators	249	250	11	5	16	64	0	64
203	Typists	90	120	5	2	7	28	155	-127
209	Other Clerical & Kindred Workers	2,390	2,990	86	53	139	556	558	-2
250	SALES WORKERS	3,911	4,500	139	54	193	772	238	534
258	Advertising Agents & Salesmen	12	15	0	0	0	0	203	-203
297	Demonstrators	20	25	0	0	0	0	0	0
250	Insurance Agents, Brokers & Underwriters.	250	275	7	3	10	40	0	40
251	Real Estate Agents & Brokers	35	40	1	0	1	4	0	4
259	Stock & Bond Salesmen	4	5	0	0	0	0	0	0
	Other Sales Workers (N.E.C.)	3,590	4,140	128	49	177	708	35	673
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	8,776	10,500	294	210	504	2,016	873	1,143
	Construction Craftsmen	1,841	2,050	67	43	110	440	308	132
861	Bricklayers, Stone, Tile	138	140	7	2	9	36	56	-20
860	Carpenters	436	440	13	6	19	76	92	-16
820	Electricians	469	520	15	12	27	108	127	-19
850	Excavating, Grading Oprs.	117	170	4	7	11	44	0	44
840	Painters & Paperhangers	227	230	10	4	14	56	0	56
842	Plasters	33	40	1	0	1	4	0	4
862	Plumbers & Pipefitters	341	400	10	12	22	88	33	55
866	Roofers & Slaters	15	20	0	0	0	0	0	0
999	Structural Metal Workers	65	90	2	0	2	8	0	8
	Foremen, (N.E.C.)	914	1,160	29	11	40	160	0	160
	Metalwkrg. Craftsmen	1,594	1,480	37	59	96	384	175	209
610	Blacksmiths, Forgemen, Hammermen	198	145	3	7	10	40	0	40
805	Boilermakers	99	90	2	0	2	8	0	8
504	Heat Treaters, Annealers	0	5	0	0	0	0	0	0
600	Machinists	1,095	1,000	25	20	45	180	116	64
638	Millwrights	30	40	1	0	1	4	14	-10
804	Sheet Mtl. Wkrs.	136	160	4	1	5	20	45	-25
601	Toolmakers, Diemakers	36	40	1	1	2	8	0	8
	Mechanics & Repairmen	2,483	2,930	73	67	140	560	279	281
827	Air Condt. Heating & Refrigmen.	33	40	1	0	1	4	2	2
621	Airplane	4	5	0	0	0	0	0	0
620	Motor Vehicles	474	580	14	17	31	124	187	-63
633	Office Machine Repairmen	8	15	0	0	0	0	0	0
720	Radio & TV Repairmen	67	90	2	1	3	12	14	-2
	Other Mechanics & Repairmen	1,897	2,200	52	30	82	328	76	252
	Printing Trades Craftsmen	137	130	3	0	3	12	8	4
650	Compositors & Typesetters	106	80	2	0	2	8	8	0
974-5	Electro & Stereotypers	0	0	-0	-0	-0	0	0	0
971-2	Engravers & Lithographers	15	30	0	0	0	0	0	0
651	Pressmen & Plate Printers	16	20	0	0	0	0	0	0
	Other Craftsmen & Kindred Workers	1,807	2,750	66	38	104	416	103	313
526	Bakers	139	160	4	1	5	20	0	20
660	Cabinetmakers	21	20	0	0	0	0	69	-69
921	Cranesmen, Derrickmen, Hoistmen	202	270	6	4	10	40	0	40
168	Inspectors	275	390	9	3	12	48	0	48
700	Jewelers, Watchmkrs, Gold & Silversmiths	12	15	0	0	0	0	0	0
821	Linemen & Servicemen	196	230	5	3	8	32	0	32
628	Loom Fixers	23	20	0	0	0	0	0	0
711	Opticians, Lens Grinders & Polishers	13	15	0	0	0	0	0	0
777	Pattern & Model Mkrs., Except Paper	12	15	0	0	0	0	0	0
950	Stationary Engineers	113	110	2	0	2	8	0	8
780	Upholsters	36	50	1	0	1	4	0	4
	Craftsmen (N.E.C.)	765	1,455	78	32	110	440	34	406
	OPERATIVES & KINDRED WORKERS	11,090	12,200	366	-109	257	1,028	232	796
	Apprentices	109	120	3	4	7	28	0	28
73?	Assemblers	257	280	8	-21	-13	-52	0	-52
720	Checkers Examiners & Inspectors, Mfg.	333	470	15	4	19	76	0	76
906	Deliverymen, Routemen, Cab Drivers	388	450	12	4	16	64	0	64
502	Furnacemen, Smeltermen & Pourers	20	20	0	0	0	0	0	0
504	Heaters, Metal	11	15	0	0	0	0	0	0
361	Laundry & Dry Cleaning	202	200	10	2	12	48	0	48
939	Mine Operatives, Mine Laborers (N.E.C.)	54	45	1	0	1	4	53	-49
316	Meat Cutters, Exc. Slaughter & Paking House	122	140	3	0	3	12	0	12
952	Power Station Operators	25	30	0	0	0	0	0	0
904	Truck & Tractor Drivers	1,590	1,950	48	39	87	348	0	348
819	Welders & Flame Cutters	898	1,120	28	22	50	200	63	137
	Semiskilled Textile Occup.	841	1,155	57	-2	55	220	116	104

TABLE 3-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
685	Knitters, Loopers, Toppers	* 161	200	8	0	8	32	59	-27
689	Sewers & Stitchers, Mfg.	652	900	36	0	36	144	57	87
682	Spinners, Textile	0	5	0	0	0	0	0	0
683	Weavers, Textile	28	50	5	0	5	20	0	20
	Other Operatives (N.E.C.)	6,240	6,205	384	-18	366	1,464	0	1,464
	SERVICE WORKERS, PRIVATE HOUSEHOLD	811	900	35	0	35	140	0	140
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	3,746	5,300	371	174	545	2,180	279	1,901
	Protective Service Workers	422	610	25	20	45	180	0	180
373	Firemen, Fire Protection	100	140	4	3	7	28	0	28
375	Policemen, Marshals	197	320	10	14	24	96	0	96
379	Guards, Watchmen	125	150	4	4	8	32	0	32
	Waiters, Cooks & Bartenders	1,360	1,920	209	67	276	1,104	33	1,104
312	Bartenders	188	240	7	6	13	52	0	52
314	Cooks	341	480	26	21	47	188	33	155
317	Counter & Fountain Workers	73	130	6	5	11	44	0	44
311	Kitchen Workers (N.E.C.)	177	240	11	9	20	80	0	80
311	Waiters & Waitresses	581	830	17	12	29	116	0	116
	Other Service Workers	1,964	2,770	116	60	176	704	207	497
355	Attendants, Hospital & Inst.	228	600	36	27	63	252	16	236
330	Barbers	127	180	4	1	5	20	2	18
381	Charwomen & Cleaners	216	280	14	2	16	64	0	64
332	Hairdressers & Cosmetologists	241	400	24	12	36	144	13	131
382	Janitors & Sextons	436	460	32	4	36	144	0	144
075	Practical Nurses	173	400	20	24	44	176	176	0
	Other Service Workers (N.E.C.)	543	450	14	16	30	120	39	81
	LABORERS, EXCLUDING FARM & MINE	3,204	2,900	72	-81	-9	-36	0	-36
	OCCUPATIONS NOT REPORTED	1,261							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Altoona Labor Market Area includes Blair County.

TABLE 4

PENNSYLVANIA MANPOWER AND TRAINING DATA

Erie Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	86,892	113,000	3,857	1,518	5,375	19,532	8,744	10,788
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	9,579	16,300	472	652	1,124	2,528	833	1,695
	Engineers, Technical	1,187	2,200	55	88	143	572	77	495
002	Engineers, Aeronautical	17	30	0	1	1	4	0	4
008	Engineers, Chemical	12	20	0	0	0	0	0	0
005	Engineers, Civil	96	170	4	6	10	40	0	40
003	Engineers, Electrical	242	460	11	20	31	124	77	47
012	Engineers, Industrial	206	450	11	18	29	116	0	116
007	Engineers, Mechanical	279	490	12	19	31	124	0	124
011	Engineers, Metallurgical	49	90	2	3	5	20	0	20
010	Engineers, Mining	0	0	0	0	0	0	0	0
	Engineers, Sales	163	240	6	9	15	60	0	60
	Other Engineers Technical	123	250	6	10	16	64	0	64
	Natural Scientists	113	250	6	10	16	64	36	-36
040	Agricultural Scientists	4	10	0	0	0	0	26	-26
041	Biological Scientists	4	10	0	0	0	0	-	-
022	Chemists	93	190	3	7	10	40	-	-
024	Geologists & Geophysicists	0	0	0	0	0	0	-	-
020	Mathematicians	0	5	0	0	0	0	-	-
023	Physicists	12	30	0	1	1	4	-	-
	Other Natural Scientists	0	5	0	0	0	0	10	-10
	Technicians Excl. Medical & Dental	644	1,210	37	54	91	364	372	-8
017	Designers	91	170	5	6	11	44	7	37
726	Electrical & Electronic	85	170	4	8	12	48	343	-295
193	Radio Operators	34	50	1	1	2	8	0	8
018	Surveyors	12	20	0	0	0	0	0	0
	Technicians, Other	422	800	27	36	63	252	22	230
	Medical, Other Health Workers	2,020	4,120	127	164	291	872	0	872
	Chiropractors & Therapists	76	200	5	8	13	52	-	52
072	Dentists	135	220	5	8	13	52	-	-
077	Dietitians & Nutritionists	33	50	2	2	4	16	0	16
075	Nurses, Professional	942	1,900	53	70	123	492	0	492
079	Nurses, Student	234	600	24	24	48	192	0	192
079	Optometrists	20	40	1	1	2	8	-	-
071	Osteopaths	33	80	2	3	5	20	-	-
074	Pharmacists	134	160	4	6	10	40	-	-
070	Physicians & Surgeons	279	490	12	20	32	128	-	-
045	Psychologists	7	20	0	0	0	0	-	-
079	Technicians, Medical & Dental	115	340	15	15	30	120	0	120
073	Veterinarians	12	20	0	0	0	0	-	-
	Teachers	2,491	4,130	144	206	350	48	0	48
092	Teachers, Elementary	1,325	1,800	68	73	141	564	-	-
091	Teachers, Secondary	897	1,700	57	64	121	484	-	-
099	Teachers, Other Excl. College	92	180	5	7	12	48	0	48
090	Teachers, College	177	450	13	18	31	124	-	-
	Social Scientists	43	80	2	3	5	4	0	4
050	Economists	30	45	1	1	2	8	-	-
020	Statisticians & Actuaries	13	25	0	1	1	4	-	-
059	Other Social Scientists	0	10	0	0	0	0	-	-
	Other Prof., Tech., & Kindred Workers	3,081	4,310	112	172	284	1,036	348	688
160	Accountants & Auditors	561	830	20	33	53	212	0	212
001	Architects	18	25	0	1	1	4	0	4
017	Draftsmen	603	1,000	25	44	69	276	214	62
110	Lawyers & Judges	141	200	5	8	13	52	-	-
166	Personnel & Labor Relation Wkrs.	104	190	4	7	11	44	-	-
195	Social & Welfare Workers (N.E.C.)	108	240	8	10	18	72	0	72
	Prof., Tech., Kindred Workers	1,546	1,825	47	71	118	472	134	338
421	FARMERS AND FARM WORKERS	2,454	1,700	59	-30	29	116	368	-252
185	MANAGERS, OFFICIALS & PROPRIETORS	6,826	9,200	248	-36	212	848	139	709
200	CLERICAL & KINDRED WORKERS	11,919	17,500	612	420	1,032	4,128	5,512	-1,384
217	Accounting Clerks & Bkprs.	913	1,200	37	30	67	268	1,128	-860
212	Bank Tellers	154	300	10	7	17	68	0	68
211	Cashiers	694	1,100	41	26	67	268	3	265
219	Office Machine Operators	329	830	34	24	58	232	385	-153
232	Postal Clerks	211	230	5	5	10	40	0	40
237	Receptionists	211	330	13	9	22	88	0	88
201	Secretaries	1,801	2,900	121	92	213	852	1,380	-528
222	Shipping & Receiving Clerks	474	510	13	12	25	100	0	100

TABLE 4-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
202	Stenographers	421	690	28	22	50	200	24	176
223	Stock Clerks & Storekeepers	640	1,320	52	39	91	364	6	358
235	Telephone Operators	415	490	22	10	32	128	27	101
203	Typists	401	640	28	14	42	168	632	-464
209	Other Clerical & Kindred Workers	5,255	6,940	201	124	325	1,300	1,931	-631
250	SALES WORKERS	6,874	9,400	291	112	403	1,612	217	1,395
258	Advertising Agents & Salesmen	16	30	0	0	0	0	132	-132
297	Demonstrators	35	50	1	0	1	4	43	-39
250	Insurance Agents, Brokers & Underwrters.	356	710	18	8	26	104	0	104
251	Real Estate Agents & Brokers	177	250	6	3	9	36	0	36
259	Stock & Bond Salesmen	4	10	0	0	0	0	0	0
	Other Sales Workers (N.E.C.)	6,286	8,350	258	100	358	1,432	42	1,390
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	13,809	18,000	504	360	864	3,456	802	2,654
	Construction Craftsmen	2,598	3,320	109	69	178	712	96	617
861	Bricklayers, Stone, Tile	253	310	15	4	19	164	22	142
860	Carpenters	806	910	28	13	41	76	24	52
820	Electricians	487	640	18	15	33	132	41	91
850	Excavating, Grading Oprs.	154	260	7	11	18	72	0	72
840	Painters & Paperhangers	307	350	15	7	22	88	0	88
842	Plasters	75	100	2	0	2	8	0	8
862	Plumbers & Pipefitters	358	500	13	15	28	112	9	103
866	Roofers & Slaters	62	100	2	0	2	8	0	8
999	Structural Metal Workers	96	150	3	1	4	16	0	16
	Foremen, (N.E.C.)	2,322	3,420	85	34	119	476	0	476
	Metalwkrg. Craftsmen	2,354	2,550	63	102	165	660	297	363
610	Blacksmiths, Forgemen, Hammermen	81	70	1	0	1	4	0	4
805	Boilermakers	65	70	1	0	1	4	0	4
504	Heat Treaters, Annealers	85	80	2	0	2	8	0	8
600	Machinists	1,246	1,320	33	26	59	236	186	50
638	Millwrights	130	180	4	3	7	28	26	2
804	Sheet Mtl. Wkrs.	137	180	4	1	5	20	75	-55
601	Toolmakers, Diemakers	610	650	16	29	45	180	10	170
	Mechanics & Repairmen	3,230	5,270	131	121	252	1,008	253	755
827	Air Condt. Heating & Refrigmen.	124	170	4	3	7	28	0	28
621	Airplane	4	10	0	0	0	0	0	0
620	Motor Vehicles	812	1,170	29	35	64	256	180	76
633	Office Machine Repairmen	33	70	1	4	5	20	0	20
720	Radio & TV Repairmen	96	150	3	3	6	24	0	24
	Other Mechanics & Repairmen	2,161	3,700	88	51	139	556	73	483
	Printing Trades Craftsmen	405	470	11	2	13	52	45	7
650	Compositors & Typesetters	235	210	5	0	5	20	32	-12
974-5	Electro & Stereotypers	24	40	1	0	1	4	0	4
971-2	Engravers & Lithographers	27	50	1	1	2	8	0	8
651	Pressmen & Plate Printers	119	170	4	1	5	20	13	7
	Other Craftsmen & Kindred Workers	2,900	2,970	71	41	112	448	111	337
526	Bakers	173	240	6	2	8	32	0	32
660	Cabinetmakers	69	90	2	1	3	12	67	-55
921	Cranesmen, Derrickmen, Hoistmen	419	650	16	11	27	108	0	108
168	Inspectors	229	370	9	3	12	48	0	48
700	Jewelers, Watchmkrs, Gold & Silversmiths	21	30	0	0	0	0	0	0
821	Linemen & Servicemen	330	450	11	6	17	68	0	68
628	Loom Fixers	0	0	0	0	0	0	0	0
711	Opticians, Lens Grinders & Polishers	12	20	0	0	0	0	0	0
777	Pattern & Model Mkrs., Except Paper	153	210	5	2	7	28	44	-16
950	Stationary Engineers	406	460	11	2	13	52	0	52
780	Upholsters	32	50	1	0	1	4	0	4
	Craftsmen (N.E.C.)	1,056	400	21	8	29	116	0	116
	OPERATIVES & KINDRED WORKERS	18,501	23,700	711	-213	498	1,992	383	1,609
	Apprentices	189	250	6	10	16	64	0	64
739	Assemblers	2,091	2,620	78	-196	-118	-472	0	-472
720	Checkers, Examiners & Inspectors, Mfg.	968	1,600	51	16	67	268	0	268
906	Deliverymen, Routemen, Cab Drivers	855	1,140	31	11	42	168	0	168
502	Furnacemen, Smeltermen & Pourers	149	160	4	-1	3	12	0	12
504	Heaters, Metal	51	70	1	0	1	4	0	4
361	Laundry & Dry Cleaning	437	510	25	6	31	124	0	124
939	Mine Operatives, Mine Laborers (N.E.C.)	20	30	0	0	0	0	0	0
316	Meat Cutters, Exc. Slaughter & Paking House	200	300	7	1	8	32	0	32
952	Power Station Operators	40	60	1	0	1	4	0	4
904	Truck & Tractor Drivers	1,653	2,350	58	47	105	420	0	420
819	Welders & Flame Cutters	892	1,300	32	26	58	232	224	8
	Semiskilled Textile Occup.	83	60	3	0	3	12	0	12

TABLE 4-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960	PROJECTED EMPLOYMENT 1/ 1975	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND	4 YEAR DEMAND 3/	4 YEAR SUPPLY 4/	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
685	Knitters, Loopers, Toppers	0	0	0	0	0	0	0	0
689	Sewers & Stitchers, Mfg.	83	60	2	0	2	0	0	0
682	Spinners, Textile	0	0	0	0	0	8	0	8
683	Weavers, Textile	0	0	0	0	0	0	0	0
	Other Operatives (N.E.C.)	10,853	13,250	821	-39	782	3,128	159	2,969
	SERVICE WORKERS, PRIVATE HOUSEHOLD	1,212	1,600	62	1	63	252	0	252
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	6,888	11,300	791	372	1,163	4,652	490	4,162
	Protective Service Workers	718	1,170	47	38	85	340	0	340
373	Firemen, Fire Protection	205	330	11	7	18	72	0	72
375	Policemen, Marshals	246	480	15	21	36	144	0	144
379	Guards, Watchmen	267	360	10	10	20	80	0	80
	Waiters, Cooks & Bartenders	2,940	4,840	527	169	696	2,784	18	2,766
312	Bartenders	373	560	16	15	31	124	0	124
314	Cooks	756	1,230	67	55	122	488	18	470
317	Counter & Fountain Workers	191	400	20	16	36	144	0	144
311	Kitchen Workers (N.E.C.)	476	760	34	28	62	248	0	248
311	Waiters & Waitresses	1,144	1,890	39	28	67	268	0	268
	Other Service Workers	3,230	5,290	222	116	338	1,352	472	880
355	Attendants, Hospital & Inst.	358	950	57	42	99	396	176	220
330	Barbers	273	500	12	5	17	68	2	66
381	Charwomen & Cleaners	459	690	34	6	40	160	0	160
332	Hairdressers & Cosmetologists	362	700	42	21	63	252	45	207
382	Janitors & Sextons	819	1,000	70	10	80	320	0	320
075	Practical Nurses	213	480	24	28	52	208	210	-2
	Other Service Workers (N.E.C.)	746	970	32	35	67	268	0	268
	LABORERS, EXCLUDING FARM & MINE	4,048	4,300	107	-120	-13	-52	0	-52
	OCCUPATIONS NOT REPORTED	4,782							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Erie Labor Market Area includes Erie County.

TABLE 5

PENNSYLVANIA MANPOWER AND TRAINING DATA

Harrisburg Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS[1] 1960 (1)	PROJECTED EMPLOYMENT[1] 1975 (2)	ANNUAL WITH-DRAWAL[2] (3)	ANNUAL GROWTH [2] (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND [3] (6)	4 YEAR SUPPLY [4] (7)	UNMET DEMAND (8)
	GRAND TOTAL	144,915	190,400	6,757	2,802	9,559	34,916	11,438	23,478
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	15,128	25,600	741	1,023	1,764	3,736	2,070	1,666
	Engineers, Technical	2,014	3,925	97	156	253	1,012	80	932
002	Engineers, Aeronautical	13	7	0	0	0	0	0	0
008	Engineers, Chemical	25	40	0	0	0	0	0	0
005	Engineers, Civil	712	1,285	30	50	80	320	29	291
003	Engineers, Electrical	401	785	19	33	52	208	20	188
012	Engineers, Industrial	321	725	17	28	45	180	5	175
007	Engineers, Mechanical	198	360	8	13	21	84	1	83
011	Engineers, Metallurgical	53	105	2	4	6	24	0	24
010	Engineers, Mining	8	10	0	0	0	0	-	0
	Engineers, Sales	71	110	2	4	6	24	0	24
	Other Engineers Technical	212	498	11	19	30	120	25	95
	Natural Scientists	236	525	12	19	31	8	43	-35
040	Agricultural Scientists	4	10	0	0	0	0	37	-37
041	Biological Scientists	4	10	0	0	0	0	-	-
022	Chemists	157	370	6	13	19	76	-	-
024	Geologists & Geophysicists	36	55	0	2	2	8	-	-
020	Mathematicians	0	5	0	0	0	0	-	-
023	Physicists	5	10	0	0	0	0	-	-
	Other Natural Scientists	30	65	0	2	2	8	6	2
	Technicians Excl. Medical & Dental	1,080	2,230	67	99	166	664	557	107
017	Designers	120	220	6	8	14	56	0	56
726	Electrical & Electronic	209	415	9	19	28	112	556	-444
193	Radio Operators	66	90	2	2	4	16	1	15
018	Surveyors	130	230	4	8	12	48	0	48
	Technicians, Other	555	1,275	42	57	99	396	0	396
	Medical, Other Health Workers	2,957	5,335	164	212	376	1,036	185	851
	Chiropractors & Therapists	131	205	5	8	13	52	0	-
072	Dentists	166	250	5	9	14	56	-	-
077	Dietitians & Nutritionists	48	72	2	2	4	16	0	16
075	Nurses, Professional	1,381	2,570	70	94	164	656	1	655
079	Nurses, Student	293	580	23	23	46	184	0	184
071	Optometrists	42	76	1	2	3	12	-	-
074	Osteopaths	21	82	1	2	3	12	-	-
070	Pharmacists	141	165	3	5	8	32	-	-
045	Physicians & Surgeons	446	815	19	32	51	204	-	-
079	Psychologists	19	55	0	2	2	8	-	-
073	Technicians, Medical & Dental	237	400	16	16	32	128	184	-56
	Veterinarians	32	65	0	2	2	8	-	-
	Teachers	3,396	6,310	219	314	533	140	0	140
092	Teachers, Elementary	1,730	2,725	102	111	213	852	-	-
091	Teachers, Secondary	1,173	2,480	82	93	175	700	-	-
099	Teachers, Other Excl. College	302	540	15	20	35	140	0	140
090	Teachers, College	191	565	16	21	37	148	-	-
	Social Scientists	145	265	6	9	15	0	30	-30
050	Economists	26	40	0	0	0	0	-	-
020	Statisticians & Actuaries	106	210	4	7	11	44	-	-
059	Other Social Scientists	13	15	0	0	0	0	30	-30
	Other Prof., Tech., & Kindred Workers	5,300	7,010	180	279	459	1,540	1,175	365
150	Accountants & Auditors	1,200	1,820	44	71	115	460	13	447
001	Architects	69	100	2	3	5	20	0	20
017	Draftsmen	451	775	18	33	51	204	202	2
110	Lawyers & Judges	393	550	13	21	34	136	-	-
166	Personnel & Labor Relation Wkrs.	338	660	15	25	40	160	-	-
195	Social & Welfare Workers (N.E.C.)	229	515	17	21	38	152	0	152
	Prof., Tech., Kindred Workers	2,620	2,590	66	100	166	664	960	-296
421	FARMERS AND FARM WORKERS	4,207	4,300	150	-77	73	292	318	-26
185	MANAGERS, OFFICIALS & PROPRIETORS	11,212	14,200	381	355	326	1,304	155	1,149
200	CLERICAL & KINDRED WORKERS	28,601	43,800	1,532	1,050	2,582	10,328	6,248	4,080
217	Accounting Clerks & Bkprs.	1,543	2,115	64	52	116	464	1,200	-736
212	Bank Tellers	294	580	18	12	30	120	0	120
211	Cashiers	1,007	2,220	83	52	135	540	0	540
219	Office Machine Operators	1,273	3,295	137	97	234	936	754	182
232	Postal Clerks	451	505	12	11	23	92	0	92
237	Receptionists	167	260	9	6	15	60	0	60
201	Secretaries	3,747	6,265	262	199	461	1,844	2,020	-176
222	Shipping & Receiving Clerks	619	670	15	14	29	116	0	116

TABLE 5-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS[1] 1960 (1)	PROJECTED EMPLOYMENT[1] 1975 (2)	ANNUAL WITH-DRAWAL[2] (3)	ANNUAL GROWTH[2] (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND[2] (6)	4 YEAR SUPPLY[4] (7)	UNMET DEMAND (8)
202	Stenographers	1,151	1,930	79	61	140	540	103	437
223	Stock Clerks & Storekeepers	1,061	2,245	88	67	155	620	25	595
235	Telephone Operators	915	1,090	47	21	68	272	0	272
203	Typists	2,788	4,505	202	103	305	1,220	538	682
209	Other Clerical & Kindred Workers	13,585	18,120	523	324	847	3,388	1,606	1,782
250	SALES WORKERS	10,359	15,900	491	190	681	2,724	232	2,492
258	Advertising Agents & Salesmen	37	60	0	0	0	0	182	-182
297	Demonstrators	63	90	2	0	2	8	9	-1
250	Insurance Agents, Brokers & Underwriters.	986	1,285	33	14	47	188	0	188
251	Real Estate Agents & Brokers	320	460	11	5	16	64	0	64
259	Stock & Bond Salesmen	65	90	0	0	0	0	0	0
	Other Sales Workers (N.E.C.)	8,888	13,915	430	166	596	2,384	41	2,343
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	21,862	27,800	775	532	1,327	5,308	1,518	3,790
	Construction Craftsmen	3,154	6,640	218	137	355	1,420	542	878
861	Bricklayers, Stone, Tile	430	630	30	8	38	152	66	86
860	Carpenters	1,589	1,800	55	26	81	324	173	151
820	Electricians	779	1,025	29	23	52	208	144	64
850	Excavating, Grading Oprs.	310	515	22	21	43	172	29	143
840	Painters & Paperhangers	916	1,100	48	20	68	272	19	253
842	Plasters	116	160	3	0	3	12	8	4
862	Plumbers & Pipefitters	795	1,070	28	30	58	232	65	167
866	Roofers & Slaters	148	230	5	0	5	20	0	20
399	Structural Metal Workers	71	110	2	0	2	8	38	-30
	Foremen, (N.E.C.)	2,779	4,095	101	40	141	564	0	564
	Metalwkrg. Craftsmen	1,733	1,915	45	71	116	464	230	234
610	Blacksmiths, Forgemen, Hammermen	74	55	0	2	2	8	0	8
805	Boilermakers	62	65	1	0	1	4	0	4
504	Heat Treaters, Annealers	43	40	0	0	0	0	0	0
600	Machinists	980	1,045	24	20	44	176	171	5
639	Millwrights	78	105	1	1	2	8	0	8
804	Sheet Mtl. Wkrs.	249	340	7	3	10	40	59	-19
601	Toolmakers, Diemakers	247	265	3	6	9	36	0	36
	Mechanics & Repairmen	6,602	10,035	250	229	479	1,916	590	1,326
827	Air Condt. Heating & Refrigmen.	116	160	3	2	5	20	62	-42
621	Airplane	653	200	4	1	5	20	1	19
620	Motor Vehicles	1,579	2,225	54	65	119	476	319	157
633	Office Machine Repairmen	115	230	5	12	17	68	3	65
720	Radio & TV Repairmen	307	450	9	8	17	68	90	-22
	Other Mechanics & Repairmen	3,832	6,770	161	94	255	1,020	115	905
	Printing Trades Craftsmen	710	800	18	3	21	84	82	2
650	Compositors & Typesetters	466	405	9	0	9	36	61	-25
974-5	Electro & Stereotypers	18	35	0	0	0	0	0	0
971-2	Engravers & Lithographers	62	130	2	1	3	12	0	12
651	Pressmen & Plate Printers	164	230	5	1	6	24	21	3
	Other Craftsmen & Kindred Workers	4,884	4,315	102	59	161	644	74	570
526	Bakers	264	350	8	3	11	44	5	39
660	Cabinetmakers	71	90	1	0	1	4	35	-31
921	Cranesmen, Derrickmen, Hoistmen	572	700	17	10	27	108	0	108
168	Inspectors	555	880	21	8	29	116	0	116
700	Jewelers, Watchmkrs, Gold & Silversmiths	32	43	0	0	0	0	0	0
821	Linemen & Servicemen	720	955	23	13	36	144	34	110
628	Loom Fixers	24	25	0	0	0	0	0	0
711	Opticians, Lens Grinders & Polishers	42	58	0	0	0	0	0	0
777	Pattern & Model Mkrs., Except Paper	106	150	3	0	3	12	0	12
950	Stationary Engineers	536	610	15	2	17	68	0	68
780	Upholsters	103	155	3	1	4	16	0	16
	Craftsmen (N.E.C.)	1,859	299	14	6	20	80	0	80
	OPERATIVES & KINDRED WORKERS	25,544	29,900	1,103	-268	835	3,340	398	2,942
	Apprentices	162	200	4	7	11	44	0	44
739	Assemblers	261	445	13	-32	-19	-76	0	-76
720	Checkers, Examiners & Inspectors, Mfg.	714	1,000	31	8	39	156	0	156
906	Delierymen, Routemen, Cab Drivers	1,103	1,290	35	12	47	188	0	188
502	Furnacemen, Smeltermen & Pourers	312	335	7	-2	5	20	0	20
504	Heaters, Metal	71	100	2	0	2	8	0	8
361	Laundry & Dry Cleaning	551	840	41	9	50	200	0	200
939	Mine Operatives, Mine Laborers (N.E.C.)	234	165	4	0	4	16	0	16
316	Meat Cutters, Exc. Slaughter & Paking House	291	390	8	0	8	32	0	32
952	Power Station Operators	60	80	1	0	1	4	0	4
904	Truck & Tractor Drivers	3,328	4,640	115	92	207	828	266	562
819	Welders & Flame Cutters	746	1,080	26	20	46	184	14	170
	Semiskilled Textile Occup.	2,937	3,337	166	-5	161	644	88	556

TABLE 5-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
685	Knitters, Loopers, Toppers	38	40	1	0	1	4	43	-39
689	Sewers & Stitchers, Mfg.	2,736	3,180	126	-2	124	44	45	-1
682	Spinners, Textile	3	2	0	0	0	496	0	496
683	Weavers, Textile	160	115	11	0	11	0	0	0
	Other Operatives (N.E.C.)	14,774	15,998	989	-47	942	3,768	30	3,738
	SERVICE WORKERS, PRIVATE HOUSEHOLD	2,033	2,600	100	1	101	404	0	404
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	11,821	18,400	1,287	606	1,893	7,572	499	7,073
	Protective Service Workers	1,455	2,340	94	76	170	680	31	649
373	Firemen, Fire Protection	177	280	8	6	14	56	0	56
375	Policemen, Marshals	640	1,190	38	50	88	352	31	321
379	Guards, Watchmen	638	870	24	23	47	188	0	188
	Waiters, Cooks & Bartenders	4,649	7,485	815	260	1,075	4,300	108	4,192
312	Bartenders	495	730	21	18	39	156	0	156
314	Cooks	1,092	1,720	93	75	168	672	108	564
317	Counter & Fountain Workers	360	725	36	28	64	256	0	256
311	Kitchen Workers (N.E.C.)	723	1,130	50	41	91	364	0	364
311	Waiters & Waitresses	1,979	3,180	65	46	111	444	0	444
	Other Service Workers	5,717	8,575	359	186	545	2,180	333	1,847
355	Attendants, Hospital & Inst.	629	1,565	93	69	162	648	71	577
330	Barbers	346	560	13	4	17	68	7	61
381	Charwomen & Cleaners	474	710	35	6	41	164	0	164
332	Hairdressers & Cosmetologists	625	1,190	71	35	106	424	45	379
382	Janitors & Sextons	1,459	1,805	125	17	142	568	0	568
075	Practical Nurses	371	900	44	54	98	392	210	182
	Other Service Workers (N.E.C.)	1,813	1,845	59	67	126	504	27	477
	LABORERS, EXCLUDING FARM & MINE	7,879	7,900	197	-220	-23	-92	0	-92
	OCCUPATIONS NOT REPORTED	6,269							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determing the four-year demand.

The Harrisburg Labor Market Area includes the following counties: Cumberland, Dauphin and Perry.

TABLE 6

PENNSYLVANIA MANPOWER AND TRAINING DATA

Johnstown Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	84,799	92,400	3,153	957	4,110	15,244	9,389	5,855
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	7,730	10,600	306	424	730	1,724	841	883
	Engineers, Technical	641	955	23	37	60	240	47	193
002	Engineers, Aeronautical	8	10	0	0	0	0	0	0
008	Engineers, Chemical	0	5	0	0	0	0	0	0
005	Engineers, Civil	85	120	2	4	6	24	0	24
003	Engineers, Electrical	89	135	2	5	7	28	0	28
012	Engineers, Industrial	166	290	7	11	18	72	0	72
007	Engineers, Mechanical	101	140	3	5	8	32	0	32
011	Engineers, Metallurgical	57	85	1	3	4	16	0	16
010	Engineers, Mining	57	50	1	1	2	8	0	8
	Engineers, Sales	28	30	0	0	0	0	0	0
	Other Engineers Technical	50	90	1	3	4	16	47	-31
	Natural Scientists	55	85	1	2	3	0	28	-28
040	Agricultural Scientists	4	5	0	0	0	0	16	-16
041	Biological Scientists	4	5	0	0	0	0	-	-
022	Chemists	47	75	1	2	3	12	-	-
024	Geologists & Geophysicists	0	0	0	0	0	0	-	-
020	Mathematicians	0	0	0	0	0	0	-	-
023	Physicists	0	0	0	0	0	0	-	-
	Other Natural Scientists	0	0	0	0	0	0	12	-12
	Technicians Excl. Medical & Dental	248	410	12	18	30	120	24	96
017	Designers	12	15	0	0	0	0	0	0
726	Electrical & Electronic	19	30	0	1	1	4	24	-20
193	Radio Operators	8	10	0	0	0	0	0	0
018	Surveyors	60	85	1	3	4	16	0	16
	Technicians, Other	149	270	8	11	19	76	0	76
	Medical, Other Health Workers	1,867	2,817	87	112	199	600	222	378
	Chiropractors & Therapists	44	50	0	1	1	4	0	4
072	Dentists	128	155	3	5	8	32	-	-
077	Dietitians & Nutritionists	27	30	0	1	1	4	10	-6
075	Nurses, Professional	1,038	1,520	41	55	96	384	31	353
079	Nurses, Student	117	180	7	7	14	56	12	44
079	Optometrists	19	35	0	1	1	4	-	-
071	Osteopaths	12	15	0	0	0	0	-	-
074	Pharmacists	86	80	1	3	4	16	-	-
070	Physicians & Surgeons	205	280	6	11	17	68	-	-
045	Psychologists	0	7	0	0	0	0	-	-
079	Technicians, Medical & Dental	191	445	19	19	38	152	169	-17
073	Veterinarians	0	20	0	0	0	0	-	-
	Teachers	2,737	3,230	112	161	273	44	74	-30
092	Teachers, Elementary	1,460	1,500	57	61	118	472	-	-
091	Teachers, Secondary	1,004	1,400	47	52	99	396	-	-
093	Teachers, Other Excl. College	148	170	5	6	11	44	74	-30
090	Teachers, College	125	160	4	6	10	40	-	-
	Social Scientists	29	40	0	1	1	0	24	-24
050	Economists	20	20	0	0	0	0	-	-
020	Statisticians & Actuaries	9	15	0	0	0	0	-	-
059	Other Social Scientists	0	5	0	0	0	0	24	-24
	Other Prof., Tech., & Kindred Workers	2,153	3,063	79	122	201	720	422	298
160	Accountants & Auditors	267	300	7	12	19	76	83	-7
001	Architects	18	20	0	0	0	0	0	0
017	Draftsmen	249	335	8	14	22	88	122	-34
110	Lawyers & Judges	164	180	4	7	11	44	-	-
166	Personnel & Labor Relation Wkrs.	65	80	1	2	3	12	-	-
195	Social & Welfare Workers (N.E.C.)	130	225	7	9	16	64	0	64
	Prof., Tech., Kindred Workers	1,260	1,923	49	74	123	492	43	449
421	FARMERS AND FARM WORKERS	2,781	2,500	87	-44	43	172	167	5
185	MANAGERS, OFFICIALS & PROPRIETORS	5,447	5,950	160	-23	137	548	32	516
200	CLERICAL & KINDRED WORKERS	8,727	10,900	381	260	641	2,564	6,031	-3,467
217	Accounting Clerks & Bkprs.	826	895	26	21	47	188	1,091	-903
212	Bank Tellers	210	335	10	8	18	72	0	72
211	Cashiers	623	900	33	20	53	212	0	212
219	Office Machine Operators	158	320	13	9	22	88	237	-149
232	Postal Clerks	155	140	2	2	4	16	0	16
237	Receptionists	106	130	5	3	8	32	0	32
201	Secretaries	1,480	1,930	80	61	141	564	1,843	-1,279
222	Shipping & Receiving Clerks	221	190	4	4	8	32	0	32

TABLE 6-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
202	Stenographers	258	340	13	10	23	92	488	-396
223	Stock Clerks & Storekeepers	230	385	14	10	24	96	8	88
235	Telephone Operators	276	260	10	5	15	60	0	60
203	Typists	248	320	13	6	19	76	722	-646
209	Other Clerical & Kindred Workers	3,936	4,755	137	85	222	888	1,642	-754
250	SALES WORKERS	6,552	7,250	223	86	309	1,236	209	1,027
258	Advertising Agents & Salesmen	27	35	0	0	0	0	138	-138
297	Demonstrators	23	25	0	0	0	0	0	0
250	Insurance Agents, Brokers & Underwrters.	449	475	11	5	16	64	0	64
251	Real Estate Agents & Brokers	57	75	1	0	1	4	0	4
259	Stock & Bond Salesmen	35	40	0	0	0	0	0	0
	Other Sales Workers (N.E.C.)	5,961	6,600	203	78	281	1,124	71	1,053
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	13,793	15,300	427	305	732	2,928	1,075	1,853
	Construction Craftsmen	3,159	3,300	108	68	176	704	114	590
861	Brickmasons, Stone, Tile	394	380	16	5	21	84	0	84
860	Carpenters	890	865	26	12	38	152	13	139
820	Electricians	529	550	15	12	27	108	97	11
850	Excavating, Grading Oprs.	400	500	12	21	33	132	3	129
840	Painters & Paperhangers	345	320	14	6	20	80	0	80
842	Plasters	75	80	1	0	1	4	0	4
862	Plumbers & Pipefitters	380	425	11	12	23	92	0	92
866	Roofers & Slaters	40	50	0	0	0	0	0	0
399	Structural Metal Workers	106	130	3	0	3	12	1	11
	Foremen, (N.E.C.)	1,845	2,200	54	21	75	300	0	300
	Metalwkrg. Craftsmen	1,098	970	23	38	61	244	166	78
610	Blacksmiths, Forgemen, Hammermen	55	86	3	6	9	0	0	0
805	Boilermakers	51	40	0	0	0	0	0	0
504	Heat Treaters, Annealers	22	15	0	0	0	84	0	84
600	Machinists	675	580	12	9	21	36	133	-97
638	Millwrights	181	200	4	3	7	28	0	28
804	Sheet Mtl. Wkrs.	47	50	1	0	1	4	33	-29
601	Toolmakers, Diemakers	36	30	0	1	1	4	0	4
	Mechanics & Repairmen	3,617	4,225	105	96	201	804	519	285
827	Air Condt. Heating & Refrigmen.	56	65	1	1	2	8	6	2
621	Airplane	4	5	0	0	0	0	0	0
620	Motor Vehicles	1,103	1,280	31	38	69	276	310	-34
633	Office Machine Repairmen	47	80	1	4	5	20	51	-31
720	Radio & TV Repairmen	198	235	1	1	2	8	66	-58
	Other Mechanics & Repairmen	2,209	2,560	60	35	95	380	86	294
	Printing Trades Craftsmen	192	170	4	0	4	16	28	-12
650	Compositors & Typesetters	140	100	1	0	1	4	13	-9
974-5	Electro & Stereotypers	0	0	0	0	0	0	0	0
971-2	Engravers & Lithographers	24	40	0	0	0	0	0	0
651	Pressmen & Plate Printers	28	30	0	0	0	0	15	-15
	Other Craftsmen & Kindred Workers	3,882	4,435	106	61	167	668	248	420
526	Bakers	141	155	3	1	4	16	32	-16
660	Cabinetmakers	82	90	1	0	1	4	44	-40
921	Cranesmen, Derrickmen, Hoistmen	961	1,200	29	19	48	192	0	192
168	Inspectors	512	670	15	5	20	80	0	80
700	Jewelers, Watchmkrs, Gold & Silversmiths	12	15	0	0	0	0	19	-19
821	Linemen & Servicemen	362	395	10	7	17	68	0	68
628	Loom Fixers	0	0	0	0	0	0	0	0
711	Opticians, Lens Grinders & Polishers	14	15	0	0	0	0	0	0
777	Pattern & Model Mkrs., Except Paper	39	45	0	0	0	0	35	-35
950	Stationary Engineers	261	240	5	0	5	20	0	20
780	Upholsters	24	30	0	0	0	0	29	-29
	Craftsmen (N.E.C.)	1,474	1,580	84	34	118	472	89	383
	OPERATIVES & KINDRED WORKERS	21,374	22,500	674	-201	473	1,892	374	1,518
	Apprentices	110	115	2	4	6	24	0	24
739	Assemblers	237	240	6	-17	-11	-44	0	-44
720	Checkers, Examiners & Inspectors, Mfg.	340	455	13	4	17	68	0	68
906	Deliverymen, Routemen, Cab Drivers	597	660	18	6	24	96	0	96
502	Furnacemen, Smeltermen & Pourers	328	275	6	-2	4	16	0	16
504	Heaters, Metal	132	145	2	0	2	8	0	8
361	Laundry & Dry Cleaning	367	500	24	5	29	116	0	116
939	Mine Operatives, Mine Laborers (N.E.C.)	4,083	3,000	75	-5	70	280	106	174
316	Meat Cutters, Exc. Slaughter & Paking House	267	290	7	0	7	28	2	26
952	Power Station Operators	36	40	0	0	0	0	0	0
904	Truck & Tractor Drivers	2,312	2,660	66	53	119	476	2	474
819	Welders & Flame Cutters	1,081	1,270	31	25	56	224	101	123
	Semiskilled Textile Occup.	2,611	2,610	130	-4	126	504	77	427

TABLE 6-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS[1] 1960 (1)	PROJECTED EMPLOYMENT[1] 1975 (2)	ANNUAL WITH-DRAWAL[2] (3)	ANNUAL GROWTH[2] (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND[3] (6)	4 YEAR SUPPLY[4] (7)	UNMET DEMAND (8)
685	Knitters, Loopers, Toppers	0	0	0	0	0	0	4	-4
689	Sewers & Stitchers, Mfg.	2,595	2,600	64	-1	63	396	73	323
682	Spinners, Textile	8	4	0	0	0	252	0	252
683	Weavers, Textile	8	6	99	0	99	0	0	0
	Other Operatives (N.E.C.)	8,803	10,240	634	-29	605	2,420	86	2,334
	SERVICE WORKERS, PRIVATE HOUSEHOLD	1,219	1,200	46	0	46	184	0	184
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	7,394	9,900	692	325	1,017	4,068	660	3,408
	Protective Service Workers	616	800	32	25	57	228	0	228
373	Firemen, Fire Protection	83	110	3	1	4	16	0	16
375	Policemen, Marshals	253	390	12	17	29	116	0	116
379	Guards, Watchmen	280	300	8	7	15	60	0	60
	Waiters, Cooks & Bartenders	2,868	3,785	412	131	542	2,168	62	2,106
312	Bartenders	532	640	18	17	35	140	0	140
314	Cooks	744	980	53	43	96	384	62	322
317	Counter & Fountain Workers	140	235	11	9	20	80	0	80
311	Kitchen Workers (N.E.C.)	317	410	18	14	32	128	0	128
311	Waiters & Waitresses	1,135	1,520	31	22	53	212	0	212
	Other Service Workers	3,910	5,315	223	116	339	1,356	597	759
355	Attendants, Hospital & Inst.	559	1,135	68	50	118	472	113	359
330	Barbers	233	315	7	2	9	35	2	34
381	Charwomen & Cleaners	474	570	28	5	33	132	0	132
332	Hairdressers & Cosmetologists	348	540	31	15	46	184	8	176
382	Janitors & Sextons	1,115	1,100	76	10	86	344	0	344
075	Practical Nurses	384	660	32	39	71	284	474	-190
	Other Service Workers (N.E.C.)	797	995	37	35	67	268	1	267
	LABORERS, EXCLUDING FARM & MINE	7,398	6,300	157	-175	-18	-72	0	-72
	OCCUPATIONS NOT REPORTED	2,304							

N.E.C. - Abbreviation for Not Elsewhere Classified.

[1]/Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

[2]/Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

[4]/Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

[3]/Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Johnstown Labor Market Area includes the following counties: Cambria and Somerset.

TABLE 7

PENNSYLVANIA MANPOWER AND TRAINING DATA

Lancaster Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS[1] 1960 (1)	PROJECTED EMPLOYMENT[1] 1975 (2)	ANNUAL WITH-DRAWAL[2] (3)	ANNUAL GROWTH[2] (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND[3] (6)	4 YEAR SUPPLY[4] (7)	UNMET DEMAND (8)
	GRAND TOTAL	113,240	146,000	4,965	1,486	6,451	24,024	6,781	17,243
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	10,214	17,400	504	696	1,200	3,020	122	2,898
	Engineers, Technical	1,124	2,130	53	85	138	552	0	552
002	Engineers, Aeronautical	0	0	0	0	0	0	0	0
008	Engineers, Chemical	66	110	2	4	6	24	0	24
005	Engineers, Civil	109	190	4	7	11	44	0	44
003	Engineers, Electrical	264	500	12	22	34	136	0	136
012	Engineers, Industrial	235	500	12	20	32	128	0	128
007	Engineers, Mechanical	220	380	9	15	24	96	0	96
011	Engineers, Metallurgical	34	60	1	2	3	12	0	12
010	Engineers, Mining	3	3	0	0	0	0	0	0
	Engineers, Sales	35	50	1	2	3	12	0	12
	Other Engineers Technical	158	337	8	13	21	84	0	84
	Natural Scientists	247	510	12	20	32	12	21	-9
040	Agricultural Scientists	22	50	1	2	3	12	18	-6
041	Biological Scientists	8	20	0	0	0	0	-	-
022	Chemists	177	350	7	14	21	84	-	-
024	Geologists & Geophysicists	0	0	0	0	0	0	-	-
020	Mathematicians	4	10	0	0	0	0	-	-
023	Physicists	29	70	1	2	3	12	-	-
	Other Natural Scientists	7	10	0	0	0	0	3	-3
	Technicians Excl. Medical & Dental	931	1,950	60	87	147	588	28	560
017	Designers	88	160	4	6	10	40	0	40
726	Electrical & Electronic	205	390	9	19	28	112	28	84
193	Radio Operators	4	10	0	0	0	0	0	0
018	Surveyors	28	50	1	2	3	12	0	12
	Technicians, Other	606	1,340	45	61	106	424	0	424
	Medical, Other Health Workers	2,117	3,890	120	155	275	828	0	828
072	Chiropractors & Therapists	92	150	4	6	10	40	0	40
077	Dentists	127	190	4	7	11	44	-	-
075	Dietitians & Nutritionists	24	35	1	1	2	8	0	8
079	Nurses, Professional	1,070	1,900	53	70	123	492	0	492
079	Nurses, Student	176	400	16	16	32	128	0	128
071	Optometrists	25	35	0	1	1	4	-	-
074	Osteopaths	43	80	2	3	5	20	-	-
070	Pharmacists	45	50	1	2	3	12	-	-
045	Physicians & Surgeons	307	520	13	21	34	136	-	-
079	Psychologists	9	20	0	0	0	0	-	-
073	Technicians, Medical & Dental	162	460	20	20	40	160	0	160
	Veterinarians	37	50	1	2	3	12	-	-
	Teachers	2,615	4,700	164	235	399	92	0	92
092	Teachers, Elementary	1,392	2,100	79	86	165	660	-	-
091	Teachers, Secondary	864	1,820	61	69	130	520	-	-
099	Teachers, Other Excl. College	176	340	10	13	23	92	0	92
090	Teachers, College	183	440	13	17	30	120	-	-
	Social Scientists	64	100	2	4	6	4	0	4
050	Economists	43	60	1	2	3	12	-	-
020	Statisticians & Actuaries	16	30	0	1	1	4	0	4
059	Other Social Scientists	5	10	0	0	0	0	-	-
	Other Prof., Tech., & Kindred Workers	3,116	4,120	107	164	271	944	73	871
160	Accountants & Auditors	513	750	18	30	48	192	6	186
001	Architects	22	30	0	1	1	4	0	4
017	Draftsmen	260	420	10	18	28	112	47	65
110	Lawyers & Judges	164	220	5	8	13	52	-	-
165	Personnel & Labor Relation Wkrs.	137	250	6	10	16	64	-	-
195	Social & Welfare Workers (N.E.C.)	101	220	7	9	16	64	0	64
	Prof., Tech., Kindred Workers	1,919	2,230	57	86	143	572	20	552
421	FARMERS AND FARM WORKERS	9,130	9,200	322	-165	157	628	289	339
185	MANAGERS, OFFICIALS & PROPRIETORS	7,240	9,600	259	-38	221	884	40	844
200	CLERICAL & KINDRED WORKERS	12,642	19,000	665	456	1,121	4,484	3,868	616
217	Accounting Clerks & Bkprs.	1,138	1,500	46	37	83	332	887	-555
212	Bank Tellers	226	440	14	10	24	96	27	69
211	Cashiers	524	1,050	39	25	64	256	0	256
219	Office Machine Operators	256	630	26	18	44	176	266	-90
232	Postal Clerks	222	240	6	5	11	44	0	44
237	Receptionists	157	240	9	7	16	64	0	64
201	Secretaries	2,167	3,420	144	109	253	1,012	940	72
222	Shipping & Receiving Clerks	691	730	18	17	35	140	0	140

TABLE 7-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS[1] 1960 (1)	PROJECTED EMPLOYMENT[1] 1975 (2)	ANNUAL WITH-DRAWAL[2] (3)	ANNUAL GROWTH[2] (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND[3] (6)	4 YEAR SUPPLY[4] (7)	UNMET DEMAND (8)
202	Stenographers	334	540	22	17	39	156	32	124
223	Stock Clerks & Storekeepers	491	1,000	40	30	70	280	23	257
235	Telephone Operators	420	480	21	10	31	124	0	124
203	Typists	639	1,000	43	23	68	272	406	-134
209	Other Clerical & Kindred Workers	5,377	7,720	223	138	361	1,444	1,287	157
250	SALES WORKERS	8,041	10,700	331	128	459	1,836	38	1,798
258	Advertising Agents & Salesmen	71	100	2	1	3	12	38	-26
297	Demonstrators	35	50	1	0	1	4	0	4
250	Insurance Agents, Brokers & Underwriters.	460	600	15	7	22	88	0	88
251	Real Estate Agents & Brokers	176	250	6	3	9	36	0	36
259	Stock & Bond Salesmen	24	30	0	0	0	0	0	0
	Other Sales Workers (N.E.C.)	9,275	9,670	299	116	415	1,660	0	1,660
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	16,848	22,500	630	450	1,080	4,320	1,171	3,149
	Construction Craftsmen	4,871	5,960	196	125	321	1,284	152	1,132
861	Bricklayers, Stone, Tile	593	700	35	11	46	184	26	158
860	Carpenters	1,746	1,940	60	29	89	356	49	307
820	Electricians	599	780	22	18	40	160	76	84
850	Excavating, Grading Oprs.	264	440	11	19	30	120	0	120
840	Painters & Paperhangers	749	830	37	16	53	212	0	212
942	Plasters	207	270	6	1	7	28	0	28
862	Plumbers & Pipefitters	603	820	22	24	46	184	1	183
866	Roofers & Slaters	88	140	3	0	3	12	0	12
399	Structural Metal Workers	22	40	1	0	1	4	0	4
	Foremen, (N.E.C.)	2,541	3,680	92	36	128	512	0	512
	Metalwkrg. Craftsmen	1,695	1,830	45	73	118	472	123	349
610	Blacksmiths, Forgemen, Hammermen	43	50	1	2	3	12	0	12
805	Boilermakers	11	10	0	0	0	0	0	0
504	Heat Treaters, Annealers	45	40	1	0	1	4	0	4
600	Machinists	914	950	23	19	42	164	112	52
638	Millwrights	73	100	2	2	4	16	0	16
804	Sheet Mtl. Wkrs.	165	220	5	2	7	28	11	17
601	Toolmakers, Diemakers	443	460	11	20	31	124	0	124
	Mechanics & Repairmen	3,863	6,200	155	142	297	1,188	222	966
827	Air Condt. Heating & Refrigmen.	75	100	2	2	4	16	87	-71
621	Airplane	164	50	1	0	1	4	0	4
620	Motor Vehicles	1,307	1,850	46	55	101	404	100	304
633	Office Machine Repairmen	45	100	2	6	8	32	0	32
720	Radio & TV Repairmen	136	200	5	4	9	36	0	36
	Other Mechanics & Repairmen	2,136	3,900	93	54	147	588	35	553
	Printing Trades Craftsmen	812	860	21	4	25	100	47	53
650	Compositors & Typesetters	559	480	12	0	12	48	46	2
974-5	Electro & Stereotypers	12	20	0	0	0	0	0	0
971-2	Engravers & Lithographers	61	110	2	2	4	16	0	16
651	Pressmen & Plate Printers	180	250	6	2	8	32	1	31
	Other Craftsmen & Kindred Workers	3,067	3,970	95	55	150	600	627	-27
526	Bakers	190	250	6	2	8	32	2	30
660	Cabinetmakers	130	180	4	2	6	24	44	-20
921	Cranesmen, Derrickmen, Hoistmen	180	280	7	4	11	44	0	44
168	Inspectors	178	290	7	2	9	36	0	36
700	Jewelers, Watchmkrs, Gold & Silversmiths	48	70	1	0	1	4	123	-119
821	Linemen & Servicemen	407	540	13	8	21	84	0	84
628	Loom Fixers	67	60	1	0	1	4	0	4
711	Opticians, Lens Grinders & Polishers	12	20	0	0	0	0	0	0
777	Pattern & Model Mkrs., Except Paper	93	130	3	1	4	16	2	14
950	Stationary Engineers	298	330	8	1	9	36	1	35
780	Upholsters	91	140	3	2	5	20	0	20
	Craftsmen (N.E.C.)	1,353	1,680	90	36	126	504	458	46
	OPERATIVES & KINDRED WORKERS	28,766	35,900	1,077	+323	754	3,016	706	2,310
	Apprentices	173	240	6	9	15	60	0	60
739	Assemblers	1,511	1,860	-139	-84	-0	-0	0	0
720	Checkers, Examiners & Inspectors, Mfg.	1,498	2,430	77	24	101	404	0	404
906	Deliverymen, Routemen, Cab Drivers	836	1,110	31	11	42	168	0	168
502	Furnacemen, Smeltermen & Pourers	133	140	3	-1	2	8	0	8
504	Heaters, Metal	4	10	0	0	0	0	0	0
361	Laundry & Dry Cleaning	349	400	20	5	25	100	0	100
939	Mine Operatives, Mine Laborers (N.E.C.)	235	180	4	0	4	16	0	16
316	Meat Cutters, Exc. Slaughter & Paking House	339	450	11	1	12	48	0	48
952	Power Station Operators	75	100	2	0	2	8	0	8
904	Truck & Tractor Drivers	3,019	4,200	105	84	189	756	0	756
819	Welders & Flame Cutters	682	980	24	19	43	172	0	172
	Semiskilled Textile Occup.	3,837	4,440	222	-8	214	856	304	552

TABLE 7-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
685	Knitters, Loopers, Toppers	153	160	6	0	6	24	6	18
689	Sewers & Stitchers, Mfg.	3,503	4,100	164	-4	160	68	294	-226
682	Spinners, Textile	11	10	0	0	0	640	0	640
683	Weavers, Textile	170	170	17	0	17	0	4	-4
	Other Operatives (N.E.C.)	16,075	19,360	1,200	-58	1,142	4,568	402	4,166
	SERVICE WORKERS, PRIVATE HOUSEHOLD	2,311	2,950	115	2	117	468	0	468
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	8,170	13,200	924	435	1,359	5,436	547	4,889
	Protective Service Workers	794	1,200	49	39	88	352	0	352
373	Firemen, Fire Protection	111	170	5	4	9	36	0	36
375	Policemen, Marshals	210	400	13	17	30	120	0	120
379	Guards, Watchmen	473	630	18	17	35	140	0	140
	Waiters, Cooks & Bartenders	3,326	5,400	588	189	777	3,108	7	3,101
312	Bartenders	322	470	14	12	26	104	0	104
314	Cooks	763	1,220	67	54	121	484	7	477
317	Counter & Fountain Workers	267	550	27	22	49	196	0	196
311	Kitchen Workers (N.E.C.)	645	1,010	46	38	84	336	0	336
311	Waiters & Waitress	1,329	2,150	45	32	77	308	0	308
	Other Service Workers	4,050	6,600	277	145	422	1,688	520	1,168
355	Attendants, Hospital & Inst.	470	1,200	72	54	126	504	150	354
330	Barbers	273	440	11	4	15	60	1	59
381	Charwomen & Cleaners	370	540	27	5	32	128	0	128
332	Hairdressers & Cosmetologists	407	760	45	22	67	268	7	261
382	Janitors & Sextons	909	1,100	77	11	88	352	0	352
075	Practical Nurses	427	900	45	54	99	396	362	34
	Other Service Workers (N.E.C.)	1,194	1,600	54	61	115	460	20	440
	LABORERS, EXCLUDING FARM & MINE	5,335	5,550	138	-155	-17	-68	0	-68
	OCCUPATIONS NOT REPORTED	4,543							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/Column (6) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/Column (5) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Lancaster Labor Market Area includes Lancaster County.

TABLE A

PENNSYLVANIA MANPOWER AND TRAINING DATA

Lancaster Labor Market Area
July 1, 1966 to June 30, 19

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS[1] 1960 (1)	PROJECTED EMPLOYMENT[1] 1975 (2)	ANNUAL WITH-DRAWAL[2] (3)	ANNUAL GROWTH[2] (4)	ANNUAL DEMAND[3] (5)	ANNUAL SUPPLY[4] (6)	UNMET DEMAND (7)
	GRAND TOTAL	113,240	146,000	4,965	1,486	6,006	1,895	4,111
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	10,214	17,400	504	696	755	22	733
	Engineers, Technical	1,124	2,130	53	85	138	0	138
002	Engineers, Aeronautical	0	0	0	0	0	0	0
008	Engineers, Chemical	66	110	2	4	6	0	6
005	Engineers, Civil	109	190	4	7	11	0	11
003	Engineers, Electrical	264	500	12	22	34	0	34
012	Engineers, Industrial	235	500	12	20	32	0	32
007	Engineers, Mechanical	220	380	9	15	24	0	24
011	Engineers, Metallurgical	34	60	1	2	3	0	3
010	Engineers, Mining	3	3	0	0	0	0	0
	Engineers, Sales	35	50	1	2	9	0	9
	Other Engineers Technical	158	337	8	13	21	0	21
	Natural Scientists	247	510	12	20	3	0	3
040	Agricultural Scientists	22	50	1	2	3	0	3
041	Biological Scientists	8	20	0	0	0	-	-
022	Chemists	177	350	7	14	21	-	-
024	Geologists & Geophysicists	0	0	0	0	0	-	-
020	Mathematicians	4	10	0	0	0	-	-
023	Physicists	29	70	1	2	3	-	-
	Other Natrual Scientists	7	10	0	0	0	0	0
	Technicians Excl. Medical & Dental	931	1,950	60	87	147	9	138
017	Designers	88	160	4	6	10	0	10
726	Electrical & Electronic	205	390	9	19	28	9	19
193	Radio Operators	4	10	0	0	0	0	0
018	Surveyors	28	50	1	2	3	0	3
	Technicians, Other	606	1,340	45	61	106	0	106
	Medical, Other Health Workers	2,117	3,890	120	155	207	0	207
	Chiropractors & Therapists	92	150	4	6	10	0	10
072	Dentists	127	190	4	7	11	-	-
077	Dietitians & Nutritionists	24	35	1	1	2	0	2
075	Nurses, Professional	1,070	1,900	53	70	123	0	123
079	Nurses, Student	176	400	16	16	32	0	32
079	Optometrist	25	35	0	1	1	-	-
071	Osteopaths	43	80	2	3	5	-	-
074	Pharmacists	45	50	1	2	3	-	-
070	Physicians & Surgeons	307	520	13	21	34	-	-
045	Psychologists	9	20	0	0	0	-	-
079	Technicians, Medical & Dental	162	460	20	20	40	0	40
073	Veterinarians	37	50	1	2	3	-	-
	Teachers	2,615	4,700	164	235	23	0	23
092	Teachers, Elementary	1,392	2,100	79	86	165	-	-
091	Teachers, Secondary	864	1,820	61	69	130	-	-
099	Teachers, Other Excl. College	176	340	10	13	23	0	23
090	Teachers, College	183	440	13	17	30	-	-
	Social Scientists	64	100	2	4	1	0	1
050	Economists	43	60	1	2	3	-	-
020	Statisticians & Actuaries	16	30	0	1	1	0	1
059	Other Social Scientists	5	10	0	0	0	0	0
	Other Prof., Tech., & Kindred Workers	3,116	4,120	107	164	236	13	223
160	Accountants & Auditors	513	750	18	30	48	0	48
001	Architects	22	30	0	1	1	0	1
017	Draftsmen	260	420	10	18	28	13	15
110	Lawyers & Judges	164	220	5	8	13	-	-
166	Personnel & Labor Relation Wkrs.	137	250	6	10	16	-	-
195	Social & Welfare Workers (N.E.C.)	101	220	7	9	16	0	16
	Prof., Tech., Kindred Workers	1,919	2,230	57	86	143	0	143
421	FARMERS AND FARM WORKERS	9,130	9,200	322	-165	157	94	63
185	MANAGERS, OFFICIALS & PROPRIETORS	7,240	9,600	259	-38	221	17	204
200	CLERICAL & KINDRED WORKERS	12,642	19,000	665	456	1,121	944	177
217	Accounting Clerks & Bkprs.	1,138	1,500	46	37	83	236	-153
212	Bank Tellers	226	440	14	10	24	8	16
211	Cashiers	524	1,050	39	25	64	0	64
219	Office Machine Operators	256	630	26	18	44	42	2
232	Postal Clerks	222	240	6	5	11	0	11
237	Receptionists	157	240	9	7	16	0	16
201	Secretaries	2,167	3,420	144	109	253	216	37
222	Shipping & Receiving Clerks	691	730	18	17	35	0	35

TABLE A-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
202	Stenographers	18,060	27,200	1,142	870	2,012	8,048	6,379	1,669
223	Stock Clerks & Storekeepers	20,921	39,700	1,588	1,191	2,779	11,116	439	10,677
235	Telephone Operators	21,335	22,900	1,030	480	1,510	6,040	221	5,819
203	Typists	31,579	47,000	2,115	1,081	3,196	12,784	16,335	-3,551
209	Other Clerical & Kindred Workers	263,948	326,000	9,365	6,002	15,367	61,468	45,955	15,513
250	SALES WORKERS	306,840	388,700	12,058	4,664	16,722	66,888	14,523	52,365
258	Advertising Agents & Salesmen	1,581	2,300	64	34	98	392	11,260	-10,868
297	Demonstrators	1,272	1,800	57	21	78	312	380	-68
250	Insurance Agents, Brokers & Underwrters.	23,117	28,000	728	33	761	3,044	33	3,011
251	Real Estate Agents & Brokers	7,522	10,400	280	135	415	1,660	-	1,660
259	Stock & Bond Salesmen	1,756	2,500	280	248	528	2,112	-	2,112
	Other Sales Workers (N.E.C.)	271,592	343,700	10,649	4,193	14,842	59,368	2,850	56,518
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	618,288	759,000	21,213	15,204	36,417	145,672	40,105	105,567
	Construction Craftsmen	143,853	168,300	5,486	3,534	9,020	52,668	8,835	43,833
861	Brickmasons, Stone, Tile	14,279	16,500	506	247	753	3,012	606	2,406
860	Carpenters	39,642	42,000	1,616	642	2,258	9,032	2,850	6,182
820	Electricians	23,358	28,500	812	669	1,481	5,924	3,547	2,377
850	Excavating, Grading Oprs.	10,941	11,800	318	518	836	3,344	384	2,960
840	Painters & Paperhangers	20,893	22,900	1,001	450	1,451	5,804	454	5,350
842	Plasters	2,813	4,900	122	24	146	584	8	576
862	Plumbers & Pipefitters	22,887	29,600	799	888	1,687	6,748	704	6,044
866	Roofers Slaters	3,548	5,700	142	28	170	680	-	680
999	Structural Metal Workers	4,492	6,800	170	68	238	952	282	670
	Foremen, (N.E.C.)	88,132	118,500	2,962	1,185	4,147	16,588	-	16,588
	Metalwkrg. Craftsmen	74,644	77,500	1,937	3,100	5,037	20,120	7,190	12,930
610	Blacksmiths, Forgemen, Hammermen	3,336	2,600	65	26	91	364	6	358
805	Boilermakers	2,382	2,300	52	5	57	228	7	221
504	Heat Treaters, Annealers	2,163	1,800	45	36	81	324	-	324
600	Machinists	41,857	42,000	1,049	2,268	3,317	13,268	5,785	7,483
638	Millwrights	6,074	7,500	187	150	337	1,348	272	1,076
804	Sheet Mtl. Wkrs.	7,808	9,800	245	98	343	1,372	920	452
601	Toolmakers, Diemakers	11,024	11,500	287	517	804	3,216	200	3,016
	Mechanics & Repairmen	151,743	230,400	5,760	5,299	11,059	44,268	18,089	26,179
827	Air Condt. Heating & Refrigmen.	3,724	5,400	135	108	243	972	1,971	-999
621	Airplane	2,558	2,300	57	23	80	320	426	-106
620	Motor Vehicles	43,438	56,000	1,400	1,680	3,080	12,320	10,838	1,482
633	Office Machine Repairmen	1,631	3,700	92	232	324	1,296	261	1,035
720	Radio & TV Repairmen	5,825	9,000	225	180	405	1,620	1,217	403
	Other Mechanics & Repairmen	94,567	154,000	3,851	3,084	6,935	27,740	3,376	24,364
	Printing Trades Craftsmen	21,005	22,000	550	110	660	2,640	1,677	963
[illegible]50	Compositors & Typesetters	13,314	10,900	272	11	283	1,132	980	152
[illegible]h-5	Electro & Stereotypers	652	1,000	25	1	26	104	86	18
971-2	Engravers & Lithographers	2,189	3,600	91	47	138	552	73	479
651	Pressmen & Plate Printers	4,850	6,500	162	51	213	852	538	314
	Other Craftsmen & Kindred Workers	138,911	142,300	4,518	1,976	6,494	25,976	4,314	21,662
526	Bakers	9,306	12,500	502	137	639	2,556	235	2,321
660	Cabinetmakers	3,626	3,900	97	58	155	620	1,280	-660
921	Cranesmen, Derrickmen, Hoistmen	19,721	26,000	650	442	1,092	4,368	0	4,368
168	Inspectors	11,239	16,400	410	164	574	2,296	88	2,208
700	Jewelers, Watchmkrs, Gold & Silversmiths	1,782	2,200	55	22	77	308	149	159
821	Linemen & Servicemen	16,391	21,300	534	319	853	3,412	183	3,229
628	Loom Fixers	1,205	1,100	27	5	32	128	0	128
711	Opticians, Lens Grinders & Polishers	1,364	2,100	52	12	64	256	16	240
777	Pattern & Model Mkrs., Except Paper	3,602	5,000	125	50	175	700	409	291
950	Stationary Engineers	19,444	20,500	512	102	614	2,456	48	2,408
780	Upholsters	2,916	4,400	110	66	176	704	306	398
	Craftsmen (N.E.C.)	48,313	26,900	1,444	597	2,043	8,172	1,600	6,572
	OPERATIVES & KINDRED WORKERS	935,328	1,073,000	51,655	-9,442	42,213	168,852	20,337	148,515
	Apprentices	5,741	7,000	140	280	420	1,680	0	1,680
739	Assemblers	33,968	40,500	1,215	810	2,025	8,100	1	8,099
720	Checkers, Examiners & Inspectors, Mfg.	37,695	52,500	1,575	1,837	3,412	13,648	1,483	12,165
906	Deliverymen, Routemen, Cab Drivers	36,120	50,800	1,422	1,016	2,438	9,752	0	9,752
502	Furnacemen, Smeltermen & Pourers	9,237	8,300	207	-83	124	496	0	496
504	Heaters, Metal	2,083	2,600	65	-26	39	156	5	151
361	Laundry & Dry Cleaning	20,732	24,200	968	605	1,573	6,292	32	6,260
939	Mine Operatives, Mine Laborers (N.E.C.)	35,068	20,000	700	-450	300	1,200	159	1,041
316	Meat Cutters, Exc. Slaughter & Paking House	11,688	15,900	397	477	874	3,496	383	3,113
952	Power Station Operators	2,100	2,800	70	-28	42	168	104	64
904	Truck & Tractor Drivers	101,221	128,000	3,200	5,120	8,320	33,280	704	32,576
819	Welders & Flame Cutters	34,761	46,000	1,150	1,380	2,530	10,120	4,050	6,070
	Semiskilled Textile Occup.	93,679	95,900	4,795	-1,918	2,877	11,508	10,079	1,429

TABLE A-Continued

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND 3/ (5)	ANNUAL SUPPLY 4/ (6)	UNMET DEMAND (7)
685	Knitters, Loopers, Toppers	153	160	6	0	6	0	6
689	Sewers & Stitchers, Mfg.	3,503	4,100	164	-4	160	98	62
682	Spinners, Textile	11	10	0	0	0	0	0
683	Weavers, Textile	170	170	17	0	17	0	17
	Other Operatives (N.E.C.)	16,075	19,360	1,200	-58	1,142	0	1,142
	SERVICE WORKERS, PRIVATE HOUSEHOLD	2,311	2,950	115	2	117	0	117
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	8,170	13,200	924	435	1,359	121	1,238
	Protective Service Workers	794	1,200	49	39	88	0	88
373	Firemen, Fire Protection	111	170	5	4	9	0	9
375	Policemen, Marshals	210	400	13	17	30	0	30
376	Guards, Watchmen	473	630	18	17	35	0	35
	Waiters, Cooks & Bartenders	3,326	5,400	588	189	777	7	770
312	Bartenders	322	470	14	12	26	0	26
314	Cooks	763	1,220	67	54	121	7	114
317	Counter & Fountain Workers	267	550	27	22	49	0	49
311	Kitchen Workers (N.E.C.)	645	1,010	46	38	84	0	84
311	Waiters & Waitresses	1,329	2,150	45	32	77	0	77
	Other Service Workers	4,050	6,600	277	145	422	114	308
355	Attendants, Hospital & Inst.	470	1,200	72	54	126	0	126
330	Barbers	273	440	11	4	15	0	15
381	Charwomen & Cleaners	370	540	27	5	32	0	32
332	Hairdressers & Cosmetologists	407	760	45	22	67	0	67
382	Janitors & Sextons	909	1,100	77	11	88	0	88
354	Practical Nurses	427	900	45	54	99	114	-15
	Other Service Workers (N.E.C.)	1,194	1,600	54	61	115	0	115
	LABORERS, EXCLUDING FARM & MINE	5,335	5,550	138	-155	-17	0	-17
	OCCUPATIONS NOT REPORTED	4,543						

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tomorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (6) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (5) is an adjusted annual demand. Those occupations which require a four-year college degree were not included in determining the annual demand.

The Lancaster Labor Market Area includes Lancaster County.

TABLE B

PENNSYLVANIA MANPOWER AND TRAINING DATA

Lancaster Labor Market Area
July 1, 1967 to June 30, 1968

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND 3/ (5)	ANNUAL SUPPLY 4/ (6)	UNMET DEMAND (7)
	GRAND TOTAL	113,240	146,000	4,965	1,486	6,006	1,832	4,174
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	10,214	17,400	504	696	755	32	723
	Engineers, Technical							
002	Engineers, Aeronautical	1,124	2,130	53	85	138	0	138
008	Engineers, Chemical	0	0	0	0	0	0	0
005	Engineers, Civil	66	110	2	4	6	0	6
003	Engineers, Electrical	109	190	4	7	11	0	11
012	Engineers, Industrial	264	500	12	22	34	0	34
007	Engineers, Mechanical	235	500	12	20	32	0	32
011	Engineers, Metallurgical	220	380	9	15	24	0	24
010	Engineers, Mining	34	60	1	2	3	0	3
	Engineers, Sales	3	3	0	0	0	0	0
	Other Engineers Technical	35	50	1	2	9	0	9
		158	337	8	13	21	0	21
	Natural Scientists							
040	Agricultural Scientists	247	510	12	20	3	8	-5
041	Biological Scientists	22	50	1	2	3	8	-5
022	Chemists	8	20	0	0	0	-	-
024	Geologists & Geophysicists	177	350	7	14	21	-	-
020	Mathematicians	0	0	0	0	0	-	-
023	Physicists	4	10	0	0	0	-	-
	Other Natural Scientists	29	70	1	2	3	-	-
		7	10	0	0	0	0	0
	Technicians Excl. Medical & Dental	931	1,950	60	87	147	9	138
017	Designers	88	160	4	6	10	0	10
726	Electrical & Electronic	205	390	9	19	28	9	19
193	Radio Operators	4	10	0	0	0	0	0
018	Surveyors	28	50	1	2	3	0	3
	Technicians, Other	606	1,340	45	61	106	0	106
	Medical, Other Health Workers	2,117	3,890	120	153	207	0	207
072	Chiropractors & Therapists	92	150	4	6	10	0	10
077	Dentists	127	190	4	7	11	-	-
075	Dietitians & Nutritionists	24	35	1	1	2	0	2
079	Nurses, Professional	1,070	1,900	53	70	123	0	123
079	Nurses, Student	176	400	16	16	32	-	32
071	Optometrists	25	35	0	1	1	-	-
074	Osteopaths	43	80	2	3	5	-	-
070	Pharmacists	45	50	1	2	3	-	-
045	Physicians & Surgeons	307	520	13	21	34	-	-
079	Psychologists	9	20	0	0	0	-	-
073	Technicians, Medical & Dental	162	460	20	20	40	0	40
	Veterinarians	37	50	1	2	3	-	-
	Teachers							
092	Teachers, Elementary	2,615	4,700	164	235	23	0	23
091	Teachers, Secondary	1,392	2,100	79	86	165	-	-
099	Teachers, Other Excl. College	864	1,820	61	69	130	-	-
090	Teachers, College	176	340	10	13	23	0	23
		183	440	13	17	30	-	-
	Social Scientists							
050	Economists	64	100	2	4	1	0	1
020	Statisticians & Actuaries	43	60	1	2	3	-	-
059	Other Social Scientists	16	30	0	1	1	0	1
		5	10	0	0	0	0	0
	Other Prof., Tech., & Kindred Workers	3,116	4,120	107	164	271	15	256
160	Accountants & Auditors	513	750	18	30	48	0	48
001	Architects	22	30	0	8	1	0	1
017	Draftsmen	260	420	10	18	28	15	13
110	Lawyers & Judges	164	220	5	8	13	-	-
166	Personnel & Labor Relation Wkrs.	137	250	6	10	16	-	-
195	Social & Welfare Workers (N.E.C.)	101	220	7	9	16	0	16
	Prof., Tech., Kindred Workers	1,919	2,230	57	86	143	0	143
421	FARMERS AND FARM WORKERS	9,130	9,200	322	-165	157	44	113
185	MANAGERS, OFFICIALS & PROPRIETORS	7,240	9,600	259	-38	221	6	215
200	CLERICAL & KINDRED WORKERS	12,642	19,000	685	436	1,121	959	162
217	Accounting Clerks & Bkprs.	1,138	1,500	46	37	83	229	-146
212	Bank Tellers	226	440	14	10	24	9	15
211	Cashiers	524	1,050	39	25	64	0	64
219	Office Machine Operators	256	630	26	18	44	42	2
232	Postal Clerks	222	240	6	5	11	0	11
237	Receptionists	157	240	9	7	16	0	16
201	Secretaries	2,167	3,420	144	109	253	210	43
222	Shipping & Receiving Clerks	691	730	18	17	35	0	35

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1960 1/	PROJECTED EMPLOYMENT 1975 1/	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND 3/	ANNUAL SUPPLY 4/	UNMET DEMAND
202	Stenographers	334	540	22	17	39	8	31
223	Stock Clerks & Storekeepers	491	1,000	40	30	70	17	53
235	Telephone Operators	420	480	21	10	31	0	31
203	Typists	639	1,000	45	23	68	218	-150
209	Other Clerical & Kindred Workers	5,377	7,720	223	138	361	226	135
250	SALES WORKERS	8,041	10,700	331	128	459	19	440
258	Advertising Agents & Salesmen	71	100	2	1	3	19	-16
297	Demonstrators	35	50	1	0	1	0	1
250	Insurance Agents, Brokers & Underwriters.	460	600	15	7	22	0	22
251	Real Estate Agents & Brokers	176	250	6	3	9	0	9
259	Stock & Bond Salesmen	24	30	0	0	0	0	0
	Other Sales Workers (N.E.C.)	9,275	9,670	299	116	415	0	415
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	16,848	22,500	630	450	1,080	181	899
	Construction Craftsmen	4,871	5,960	196	125	321	44	277
861	Brickmasons, Stone, Tile	593	700	35	11	46	7	39
860	Carpenters	1,746	1,940	60	29	89	14	75
820	Electricians	599	780	22	18	40	23	17
850	Excavating, Grading Oprs.	264	440	11	19	30	0	30
840	Painters & Paperhangers	749	830	37	16	53	0	53
842	Plasters	207	270	6	1	7	0	7
862	Plumbers & Pipefitters	603	820	22	24	46	0	46
866	Roofers & Slaters	88	140	3	0	3	0	3
399	Structural Metal Workers	22	40	1	0	1	0	1
		2,541						
	Foremen, (N.E.C.)	2,541	3,680	92	36	128	0	128
	Metalwkrg. Craftsmen	1,695	1,830	45	73	118	34	84
610	Blacksmiths, Forgemen, Hammermen	43	50	1	2	3	0	3
805	Boilermakers	11	10	0	0	0	0	0
504	Heat Treaters, Annealers	45	40			1	0	1
600	Machinists	914	950	23	19	42	31	11
638	Millwrights	73	100	2	2	4	0	4
804	Sheet Mtl. Wkrs.	165	220	5	2	7	3	4
601	Toolmakers, Diemakers	443	460	11	20	31	0	31
	Mechanics & Repairmen	3,863	6,200	155	142	297	42	255
827	Air Condt. Heating & Refrigmen.	75	100	2	2	4	0	4
621	Airplane	164	50	1	0	1	0	1
620	Motor Vehicles	1,307	1,850	46	55	101	22	79
633	Office Machine Repairmen	45	100	2	6	8	0	8
720	Radio & TV Repairmen	136	200	5	4	9	0	9
	Other Mechanics & Repairmen	2,136	3,900	93	54	147	20	127
	Printing Trades Craftsmen	812	800	21	4	25	15	10
650	Compositors & Typesetters	559	480	12	0	12	15	-3
974-5	Electro & Stereotypers	12	20	0	0	0	0	0
971-2	Engravers & Lithographers	61	110	2	2	4	0	4
651	Pressmen & Plate Printers	180	250	6	2	8	0	8
	Other Craftsmen & Kindred Workers	3,067	3,970	95	55	150	46	104
526	Bakers	190	250	6	2	8	0	8
660	Cabinetmakers	150	180	4	2	6	16	-10
921	Cranesmen, Derrickmen, Hoistmen	180	280	7	4	11	0	11
168	Inspectors	178	290	7	2	9	0	9
700	Jewelers, Watchmkrs, Gold & Silversmiths	48	70	1	0	1	30	-29
821	Linemen & Servicemen	407	540	13	8	21	0	21
628	Loom Fixers	67	60	1	0	1	0	1
711	Opticians, Lens Grinders & Polishers	12	20	0	0	0	0	0
777	Pattern & Model Mkrs., Except Paper	93	130	3	1	4	0	4
950	Stationary Engineers	298	330	8	1	9	0	9
780	Upholsters	91	140	3	2	5	0	5
	Craftsmen (N.E.C.)	1,353	1,680	90	36	126	0	126
	OPERATIVES & KINDRED WORKERS	28,766	35,900	1,077	-323	754	478	276
	Apprentices	173	240	6	9	15	0	15
739	Assemblers	1,511	1,860	-139	-84	-0	0	-0
720	Checkers, Examiners & Inspectors, Mfg.	1,498	2,430	77	24	101	0	101
906	Deliverymen, Routemen, Cab Drivers	836	1,110	31	11	42	0	42
502	Furnacemen, Smeltermen & Pourers	133	140	3	-1	2	0	2
504	Heaters, Metal	4	10	0	0	0	0	0
361	Laundry & Dry Cleaning	349	400	20	5	25	0	25
939	Mine Operatives, Mine Laborers (N.E.C.)	235	180	4	0	4	0	4
316	Meat Cutters, Exc. Slaughter & Paking House	339	450	11	1	12	0	12
952	Power Station Operators	75	100	2	0	2	0	2
904	Truck & Tractor Drivers	3,019	4,200	105	84	189	0	189
819	Welders & Flame Cutters	682	980	24	19	43	0	43
	Semiskilled Textile Occup.	3,837	4,440	222	-8	214	82	132

TABLE - B
CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960	PROJECTED EMPLOYMENT 1/ 1975	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND 3/	ANNUAL SUPPLY 4/	UNMET DEMAND
685	Knitters, Loopers, Toppers	153	160	6	0	6	0	6
689	Sewers & Stitchers, Mfg.	3,503	4,100	164	-4	160	78	82
682	Spinners, Textile	11	10	0	0	0	0	0
683	Weavers, Textile	170	170	17	0	17	4	13
	Other Operatives (N.E.C.)	16,075	19,360	1,200	-58	1,142	396	746
	SERVICE WORKERS, PRIVATE HOUSEHOLD	2,311	2,950	115	2	117	0	117
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	8,170	13,200	924	435	1,359	113	1,246
	Protective Service Workers	794	1,200	49	39	88	0	88
373	Firemen, Fire Protection	111	170	5	4	9	0	9
375	Policement, Marshals	210	400	13	17	30	0	30
379	Guards, Watchmen	473	630	18	17	35	0	35
	Waiters, Cooks & Bartenders	3,326	5,400	588	189	777	0	777
312	Bartenders	322	470	14	12	26	0	26
314	Cooks	763	1,220	67	54	121	0	121
317	Counter & Fountain Workers	267	550	27	22	49	0	49
311	Kitchen Workers (N.E.C.)	645	1,010	46	38	84	0	84
311	Waiters & Waitresses	1,329	2,150	45	32	77	0	77
	Other Service Workers	4,050	6,600	277	145	422	113	309
355	Attendants, Hospital & Inst.	470	1,200	72	54	126	41	85
330	Barbers	273	440	11	4	15	0	15
381	Charwomen & Cleaners	370	540	27	5	32	0	32
332	Hairdressers & Cosmetologists	407	760	45	22	67	1	66
382	Janitors & Sextons	909	1,100	77	11	88	0	88
075	Practical Nurses	427	900	45	54	99	71	28
	Other Service Workers (N.E.C.)	1,194	1,600	54	61	115	0	115
	LABORERS, EXCLUDING FARM & MINE	5,335	5,550	138	-155	-17	0	-17
	OCCUPATIONS NOT REPORTED	4,543						

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (6) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (5) is an adjusted annual demand. Those occupations which require a four-year college degree were not included in determining the annual demand.

The Lancaster Labor Market Area includes Lancaster County.

TABLE C

PENNSYLVANIA MANPOWER AND TRAINING DATA

Lancaster Labor Market Area
July 1, 1968 to June 30, 1969

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND 3/ (5)	ANNUAL SUPPLY 4/ (6)	UNMET DEMAND (7)
	GRAND TOTAL	113,240	146,000	4,965	1,486	6,006	1,538	4,468
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	10,214	17,400	504	696	755	39	716
	Engineers, Technical	1,124	2,130	53	85	138	0	138
002	Engineers, Aeronautical	0	0	0	0	0	0	0
008	Engineers, Chemical	66	110	2	4	6	0	6
005	Engineers, Civil	109	190	4	7	11	0	11
003	Engineers, Electrical	264	500	12	22	34	0	34
012	Engineers, Industrial	235	500	12	20	32	0	32
007	Engineers, Mechanical	220	380	9	15	24	0	24
011	Engineers, Metallurgical	34	60	1	2	3	0	3
010	Engineers, Mining	3	3	0	0	0	0	0
	Engineers, Sales	35	50	1	2	9	0	9
	Other Engineers Technical	158	337	8	13	21	0	21
	Natural Scientists	247	510	12	20	3	13	-10
040	Agricultural Scientists	22	50	1	2	3	10	-7
041	Biological Scientists	8	20	0	0	0	-	-
022	Chemists	177	350	7	14	21	-	-
024	Geologists & Geophysicists	0	0	0	0	0	0	0
020	Mathematicians	4	10	0	0	0	-	-
023	Physicists	29	70	1	2	3	-	-
	Other Natural Scientists	7	10	0	0	0	3	-3
	Technicians Excl. Medical & Dental	931	1,930	60	87	147	10	137
017	Designers	88	160	4	6	10	0	10
726	Electrical & Electronic	205	390	9	19	28	10	18
193	Radio Operators	4	10	0	0	0	0	0
018	Surveyors	28	50	1	2	3	0	3
	Technicians, Other	606	1,340	45	61	106	0	106
	Medical, Other Health Workers	2,117	3,890	120	155	207	0	207
	Chiropractors & Therapists	92	150	4	6	10	0	10
072	Dentists	127	190	4	7	11	-	-
077	Dietitians & Nutritionists	24	35	1	1	2	0	2
075	Nurses, Professional	1,070	1,900	53	70	123	0	123
079	Nurses, Student	176	400	16	16	32	0	32
079	Optometrists	25	35	0	1	1	-	-
071	Osteopaths	43	80	2	3	5	-	-
074	Pharmacists	45	50	1	2	3	-	-
070	Physicians & Surgeons	307	520	13	21	34	-	-
045	Psychologists	9	20	0	0	0	-	-
079	Technicians, Medical & Dental	162	460	20	20	40	0	40
073	Veterinarians	37	50	1	2	3	-	-
	Teachers	2,615	4,700	164	235	23	0	23
092	Teachers, Elementary	1,392	2,100	79	86	165	-	-
091	Teachers, Secondary	864	1,820	61	69	130	-	-
099	Teachers, Other Excl. College	176	340	10	13	23	0	23
090	Teachers, College	183	440	13	17	30	-	-
	Social Scientists	64	100	2	4	1	0	1
050	Economists	43	60	1	2	3	-	-
020	Statisticians & Actuaries	16	30	0	1	1	0	1
059	Other Social Scientists	5	10	0	0	0	0	0
	Other Prof., Tech., & Kindred Workers	3,116	4,120	107	164	236	16	220
160	Accountants & Auditors	513	750	18	30	48	0	48
001	Architects	22	30	0	1	1	0	1
017	Draftsmen	260	420	10	18	28	16	12
110	Lawyers & Judges	164	220	5	8	13	-	-
166	Personnel & Labor Relation Wkrs.	137	250	6	10	16	-	-
195	Social & Welfare Workers (N.E.C.)	101	220	7	9	16	0	16
	Prof., Tech., Kindred Workers	1,919	2,230	57	86	143	0	143
421	FARMERS AND FARM WORKERS	9,130	9,200	322	-165	157	59	98
185	MANAGERS, OFFICIALS & PROPRIETORS	7,240	9,600	259	-38	221	16	205
200	CLERICAL & KINDRED WORKERS	12,642	19,000	665	456	1,121	984	137
217	Accounting Clerks & Bkprs.	1,138	1,500	46	37	83	186	-103
212	Bank Tellers	226	440	14	10	24	10	14
211	Cashiers	524	1,050	39	25	64	0	64
219	Office Machine Operators	256	630	26	18	44	145	-101
232	Postal Clerks	222	240	6	5	11	0	11
237	Receptionists	157	240	9	7	16	0	16
201	Secretaries	2,167	3,420	144	109	253	250	3
222	Shipping & Receiving Clerks	691	730	18	17	35	-	35

TABLE-C
CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND 3/ (5)	ANNUAL SUPPLY 4/ (6)	UNMET DEMAND (7)
202	Stenographers	334	540	22	17	39	13	29
223	Stock Clerks & Storekeepers	491	1,000	40	30	70	6	64
235	Telephone Operators	420	480	21	10	31	0	31
203	Typists	639	1,000	45	23	68	188	-120
209	Other Clerical & Kindred Workers	5,377	7,720	223	138	361	189	172
250	SALES WORKERS	8,041	10,700	331	128	459	0	459
258	Advertising Agents & Salesmen	71	100	2	1	3	0	3
297	Demonstrators	35	50	1	0	1	0	1
250	Insurance Agents, Brokers & Underwrters.	460	600	15	7	22	0	22
251	Real Estate Agents & Brokers	176	250	6	3	9	0	9
259	Stock & Bond Salesmen	24	30	0	0	0	0	0
	Other Sales Workers (N.E.C.)	9,275	9,670	299	116	415	0	415
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	16,848	22,500	630	450	1,080	178	902
	Construction Craftsmen	4,871	5,960	196	125	321	42	279
861	Bricklayers, Stone, Tile	593	700	35	11	46	8	38
860	Carpenters	1,746	1,940	60	29	89	15	74
820	Electricians	599	780	22	18	40	19	21
850	Excavating, Grading Oprs.	264	440	11	19	30	0	30
840	Painters & Paperhangers	749	830	37	16	53	0	53
842	Plasters	207	270	6	1	7	0	7
862	Plumbers & Pipefitters	603	820	22	24	46	0	46
866	Roofers & Slaters	88	140	3	0	3	0	3
999	Structural Metal Workers	22	40	1	0	1	0	1
	Foremen, (N.E.C.)	2,541	3,680	92	36	128	0	128
	Metalwkrg. Craftsmen	1,695	1,830	45	73	118	36	82
610	Blacksmiths, Forgemen, Hammermen	43	50	1	2	3	0	3
805	Boilermakers	11	10	0	0	0	0	0
504	Heat Treaters, Annealers	45	40			1	0	1
600	Machinists	914	950	23	19	42	32	10
638	Millwrights	73	100	2	2	4	0	4
804	Sheet Mtl. Wkrs.	163	220	5	2	7	4	3
601	Toolmakers, Diemakers	443	460	11	20	31	0	31
	Mechanics & Repairmen	3,863	6,200	155	142	297	39	258
827	Air Condt. Heating & Refrigmen.	75	100	2	2	4	0	4
621	Airplane	154	50	1	0	1	0	1
620	Motor Vehicles	1,307	1,850	46	55	101	24	77
633	Office Machine Repairmen	45	100	2	6	8	0	8
720	Radio & TV Repairmen	136	200	5	4	9	0	9
	Other Mechanics & Repairmen	2,136	3,900	93	54	147	15	132
	Printing Trades Craftsmen	812	860	21	4	25	17	8
650	Compositors & Typesetters	559	480	12	0	12	17	-5
974-5	Electro & Stereotypers	12	20	0	0	0	0	0
971-2	Engravers & Lithographers	61	110	2	2	4	0	4
651	Pressmen & Plate Printers	180	250	6	2	8	0	8
	Other Craftsmen & Kindred Workers	3,067	3,970	95	55	150	44	106
526	Bakers	190	250	6	2	8	0	8
660	Cabinetmakers	150	180	4	2	6	11	-5
921	Cranesmen, Derrickmen, Hoistmen	180	280	7	4	11	0	11
168	Inspectors	178	290	7	2	9	0	9
700	Jewelers, Watchmkrs, Gold & Silversmiths	48	70	1	0	1	33	-32
821	Linemen & Servicemen	407	540	13	8	21	0	21
628	Loom Fixers	67	60	1	0	1	0	1
711	Opticians, Lens Grinders & Polishers	12	20	0	0	0	0	0
777	Pattern & Model Mkrs., Except Paper	93	130	3	1	4	0	4
950	Stationary Engineers	298	330	8	1	9	0	9
780	Upholsters	91	140	3	2	5	0	5
	Craftsmen (N.E.C.)	1,353	1,680	90	36	126	0	126
	OPERATIVES & KINDRED WORKERS	28,766	35,900	1,077	-323	754	107	647
	Apprentices	173	240	6	9	15	0	15
739	Assemblers	1,511	1,860	-139	-84	-0	0	-0
720	Checkers, Examiners & Inspectors, Mfg.	1,498	2,430	77	24	101	0	101
906	Deliverymen, Routemen, Cab Drivers	836	1,110	31	11	42	0	42
502	Furnacemen, Smeltermen & Pourers	133	140	3	-1	2	0	2
504	Heaters, Metal	4	10	0	0	0	0	0
361	Laundry & Dry Cleaning	349	400	20	5	25	0	25
939	Mine Operatives, Mine Laborers (N.E.C.)	235	180	4	0	4	0	4
316	Meat Cutters, Exc. Slaughter & Paking House	339	450	11	1	12	0	12
952	Power Station Operators	75	100	2	0	2	0	2
904	Truck & Tractor Drivers	3,019	4,200	105	84	189	0	189
819	Welders & Flame Cutters	682	980	24	19	43	0	43
	Semiskilled Textile Occup.	3,837	4,440	222	-8	214	101	113

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960	PROJECTED EMPLOYMENT 1/ 1975	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND 3/	ANNUAL SUPPLY 4/	UNMET DEMAND
685	Knitters, Loopers, Toppers	153	160	6	0	6	0	6
689	Sewers & Stitchers, Mfg.	3,503	4,100	164	-4	160	0	160
682	Spinners, Textile	11	10	0	0	0	0	0
683	Weavers, Textile	170	170	17	0	17	0	17
	Other Operatives (N.E.C.)	16,075	19,360	1,200	-58	1,142	5	1,136
	SERVICE WORKERS, PRIVATE HOUSEHOLD	2,311	2,950	115	2	117	0	117
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	8,170	13,200	924	435	1,359	155	1,204
	Protective Service Workers	794	1,200	49	33	88	0	88
373	Firemen, Fire Protection	111	170	5	4	9	0	9
375	Policemen , Marshals	210	400	13	17	30	0	30
379	Guards, Watchmen	473	630	13	17	35	0	35
	Waiters, Cooks & Bartenders	3,326	5,400	588	189	777	0	777
312	Bartenders	322	470	14	12	26	0	26
314	Cooks	763	1,220	67	54	121	0	121
317	Counter & Fountain Workers	267	550	27	22	49	0	49
311	Kitchen Workers (N.E.C.)	645	1,010	46	38	84	0	84
311	Waiters & Waitresses	1,329	2,150	45	32	77	0	77
	Other Service Workers	4,050	6,600	277	145	422	155	267
355	Attendants, Hospital & Inst.	470	1,200	72	54	126	58	68
330	Barbers	273	440	11	4	15	1	14
381	Charwomen & Cleaners	370	540	27	5	32	0	32
332	Hairdressers & Cosmetologists	407	760	45	22	67	1	66
382	Janitors & Sextons	909	1,100	77	11	88	0	88
075	Practical Nurses	427	900	45	54	99	95	4
	Other Service Workers (N.E.C.)	1,194	1,600	54	51	115	0	115
	LABORERS, EXCLUDING FARM & MINE	5,335	5,550	133	4155	-17	0	-17
	OCCUPATIONS NOT REPORTED	4,543						

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1360 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational classifications.

4/ Column (6) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (5) is an adjusted annual demand. Those occupations which require a four-year college degree were not included in determining the annual demand.

The Lancaster Labor Market Area includes Lancaster County.

TABLE D

PENNSYLVANIA MANPOWER AND TRAINING DATA

Lancaster Labor Market Area
July 1, 1969 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND 2/ (5)	ANNUAL SUPPLY 4/ (6)	UNMET DEMAND (7)
	GRAND TOTAL	113,240	146,000	4,965	1,486	6,006	1,515	4,490
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	10,214	17,400	504	696	755	29	726
	Engineers, Technical	1,124	2,130	53	85	138	0	138
002	Engineers, Aeronautical	0	0	0	0	0	0	0
008	Engineers, Chemical	66	110	2	4	6	0	6
005	Engineers, Civil	109	190	4	7	11	0	11
003	Engineers, Electrical	264	500	12	22	34	0	34
012	Engineers, Industrial	235	500	12	20	32	0	32
007	Engineers, Mechanical	220	380	9	15	24	0	24
011	Engineers, Metallurgical	34	60	1	2	3	0	3
010	Engineers, Mining	3	3	0	0	0	0	0
	Engineers, Sales	35	50	1	2	9	0	9
	Other Engineers Technical	158	337	8	13	21	0	21
	Natural Scientists	247	510	12	20	3	0	3
040	Agricultural Scientists	22	50	1	2	3	0	3
041	Biological Scientists	8	20	0	0	0	-	-
022	Chemists	177	350	7	14	21	-	-
024	Geologists & Geophysicists	0	0	0	0	0	-	-
020	Mathematicians	4	10	0	0	0	-	-
023	Physicists	29	70	1	2	3	-	-
	Other Natural Scientists	7	10	0	0	0	0	0
	Technicians Excl. Medical & Dental	931	1,950	50	87	147	0	147
017	Designers	88	160	4	6	10	0	10
726	Electrical & Electronic	205	390	9	19	28	0	28
193	Radio Operators	4	10	0	0	0	0	0
018	Surveyors	28	50	1	2	3	0	3
	Technicians, Other	606	1,340	45	61	106	0	106
	Medical, Other Health Workers	2,117	3,890	120	135	207	0	207
	Chiropractors & Therapists	92	150	4	6	10	0	10
072	Dentists	127	190	4	7	11	-	-
077	Dietitians & Nutritionists	24	35	1	1	2	0	2
075	Nurses, Professional	1,070	1,900	53	70	123	0	123
079	Nurses, Student	176	400	15	16	32	0	32
079	Optometrists	25	35	0	1	1	-	-
071	Osteopaths	43	80	2	3	5	-	-
074	Pharmacists	45	50	1	2	3	-	-
070	Physicians & Surgeons	307	520	13	21	34	-	-
045	Psychologists	9	20	0	0	0	-	-
079	Technicians, Medical & Dental	152	460	20	20	40	-	-
073	Veterinarians	37	50	1	2	3	-	-
	Teachers	2,615	4,700	164	235	23	0	23
092	Teachers, Elementary	1,392	2,100	79	86	165	-	-
091	Teachers, Secondary	864	1,820	61	69	130	-	-
099	Teachers, Other Excl. College	176	340	10	13	23	0	23
090	Teachers, College	183	440	13	17	30	-	-
	Social Scientists	64	100	2	4	1	0	1
050	Economists	43	60	1	2	3	-	-
020	Statisticians & Actuaries	16	30	0	1	1	0	1
059	Other Social Scientists	5	10	0	0	0	0	0
	Other Prof., Tech., & Kindred Workers	3,116	4,120	107	164	236	29	207
160	Accountants & Auditors	513	750	18	30	48	6	42
001	Architects	22	30	0	1	1	0	1
017	Draftsmen	260	420	10	18	28	3	25
110	Lawyers & Judges	164	220	5	8	13	-	-
165	Personnel & Labor Relation Wkrs.	137	250	6	10	16	-	-
195	Social & Welfare Workers (N.E.C.)	101	220	7	9	16	0	16
	Prof., Tech., Kindred Workers	1,919	2,230	57	86	143	20	123
421	FARMERS AND FARM WORKERS	9,130	9,200	322	-165	157	92	65
185	MANAGERS, OFFICIALS & PROPRIETORS	7,240	9,600	259	-38	221	1	220
200	CLERICAL & KINDRED WORKERS	12,642	19,000	665	456	1,121	981	140
217	Accounting Clerks & Bkprs.	1,138	1,500	46	37	83	236	-153
212	Bank Tellers	226	440	14	10	24	0	24
211	Cashiers	524	1,050	39	25	64	0	64
219	Office Machine Operators	256	630	26	18	44	37	7
232	Postal Clerks	222	240	6	5	11	0	11
237	Receptionists	157	240	9	7	16	0	16
201	Secretaries	2,167	3,420	144	109	253	264	-11
122	Shipping & Receiving Clerks	691	730	18	17	35	0	35

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND 2/ (5)	ANNUAL SUPPLY 4/ (6)	UNMET DEMAND (7)
202	Stenographers	334	540	22	17	39	3	36
223	Stock Clerks & Storekeepers	491	1,000	40	30	70	0	70
235	Telephone Operators	420	480	21	10	31	0	31
203	Typists	639	1,000	45	23	68	0	68
209	Other Clerical & Kindred Workers	5,377	7,720	223	138	361	441	-80
250	SALES WORKERS	8,041	10,700	331	128	459	0	459
258	Advertising Agents & Salesmen	71	100	2	1	3	0	3
297	Demonstrators	35	50	1	0	1	0	1
250	Insurance Agents, Brokers & Underwriters.	460	600	15	7	22	0	22
251	Real Estate Agents & Brokers	176	250	6	3	9	0	9
259	Stock & Bond Salesmen	24	30	0	0	0	0	0
	Other Sales Workers (N.E.C.)	9,275	9,670	299	116	415	0	415
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	16,848	22,500	630	450	1,080	232	848
	Construction Craftsmen	4,871	5,960	196	125	321	28	293
861	Bricklayers, Stone, Tile	593	700	35	11	46	4	42
860	Carpenters	1,746	1,940	60	29	89	7	88
820	Electricians	599	780	22	18	40	16	24
850	Excavating, Grading Oprs.	264	440	11	19	30	0	30
840	Painters & Paperhangers	749	830	37	16	53	0	53
842	Plasters	207	270	6	1	7	0	7
862	Plumbers & Pipefitters	603	820	22	24	46	1	45
866	Roofers & Slaters	88	140	3	0	3	0	3
899	Structural Metal Workers	22	40	1	0	1	0	1
	Foremen, (N.E.C.)	2,541	3,680	92	36	128	0	128
	Metalwkrg. Craftsmen	1,695	1,830	45	73	118	22	96
610	Blacksmiths, Forgemen, Hammermen	43	50	1	2	3	0	3
805	Boilermakers	11	10	0	0	0	0	0
504	Heat Treaters, Annealers	45	40			1	0	1
600	Machinists	914	950	23	19	42	20	22
638	Millwrights	73	100	2	2	4	0	4
804	Sheet Mtl. Wkrs.	165	220	5	2	7	2	5
601	Toolmakers, Diemakers	443	460	11	20	31	0	31
	Mechanics & Repairmen	3,863	6,200	155	142	297	119	178
827	Air Condt. Heating & Refrigmen.	75	100	2	2	4	87	-83
621	Airplane	164	50	1	0	1	0	1
620	Motor Vehicles	1,307	1,850	46	55	101	32	69
633	Office Machine Repairmen	45	100	2	6	8	0	8
720	Radio & TV Repairmen	136	200	5	4	9	0	9
	Other Mechanics & Repairmen	2,136	3,900	93	54	147	0	147
	Printing Trades Craftsmen	812	860	21	4	25	1	24
650	Compositors & Typesetters	559	480	12	0	12	0	12
974-5	Electro & Stereotypers	12	20	0	0	0	0	0
971-2	Engravers & Lithographers	61	110	2	2	4	0	4
651	Pressmen & Plate Printers	180	250	6	2	8	1	7
	Other Craftsmen & Kindred Workers	3,067	3,970	95	55	150	62	88
526	Bakers	190	250	6	2	8	2	6
660	Cabinetmakers	150	180	4	2	6	6	0
921	Cranesmen, Derrickmen, Hoistmen	180	280	7	4	11	0	11
168	Inspectors	178	290	7	2	9	0	9
700	Jewelers, Watchmkrs, Gold & Silversmiths	48	70	1	0	1	35	-34
821	Linemen & Servicemen	407	540	13	8	21	0	21
628	Loom Fixers	67	60	1	0	1	0	1
711	Opticians, Lens Grinders & Polishers	12	20	0	0	0	0	0
777	Pattern & Model Mkrs., Except Paper	93	130	3	1	4	0	4
950	Stationary Engineers	298	330	8	1	9	0	9
780	Upholsters	91	140	3	2	5	0	5
	Craftsmen (N.E.C.)	1,353	1,680	90	36	126	18	108
	OPERATIVES & KINDRED WORKERS	28,766	35,900	1,077	-323	754	23	731
	Apprentices	173	240	6	9	15	0	15
739	Assemblers	1,511	1,860	-139	-84	-0	0	-0
720	Checkers, Examiners & Inspectors, Mfg.	1,498	2,430	77	24	101	0	101
906	Deliverymen, Routemen, Cab Drivers	836	1,110	31	11	42	0	42
502	Furnacemen, Smeltermen & Pourers	133	140	3	-1	2	0	2
504	Heaters, Metal	4	10	0	0	0	0	0
361	Laundry & Dry Cleaning	349	400	20	5	25	0	25
939	Mine Operatives, Mine Laborers (N.E.C.)	235	180	4	0	4	0	4
316	Meat Cutters, Exc. Slaughter & Paking House	339	450	11	1	12	0	12
952	Power Station Operators	75	100	2	0	2	0	2
904	Truck & Tractor Drivers	3,019	4,200	105	84	189	0	189
819	Welders & Flame Cutters	682	980	24	19	43	0	43
	Semiskilled Textile Occup.	3,837	4,440	222	-8	214	23	191

TABLE - D
CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND 3/ (5)	ANNUAL SUPPLY 4/ (6)	UNMET DEMAND (7)
685	Knitters, Loopers, Toppers	153	160	6	0	6	6	0
689	Sewers & Stitchers, Mfg.	3,503	4,100	164	-4	160	17	143
682	Spinners, Textile	11	10	0	0	0	0	0
683	Weavers, Textile	170	170	17	0	17	0	17
	Other Operatives (N.E.C.)	16,075	19,360	1,200	-58	1,142	0	1,142
	SERVICE WORKERS, PRIVATE HOUSEHOLD	2,311	2,950	115	2	117	0	117
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	8,170	13,200	924	435	1,359	158	1,201
	Protective Service Workers	794	1,200	49	39	88	0	88
373	Firemen, Fire Protection	111	170	5	4	9	0	9
375	Policemen, Marshals	210	400	13	17	30	0	30
379	Guards, Watchmen	473	630	18	17	35	0	35
	Waiters, Cooks & Bartenders	3,326	5,400	588	189	777	0	777
312	Bartenders	322	470	14	12	26	0	26
314	Cooks	763	1,220	67	54	121	0	121
317	Counter & Fountain Workers	267	550	27	22	49	0	49
311	Kitchen Workers (N.E.C.)	645	1,010	46	38	84	0	84
311	Waiters & Waitresses	1,329	2,150	45	32	77	0	77
	Other Service Workers	4,050	6,600	277	145	422	0	422
355	Attendants, Hospital & Inst.	470	1,200	72	54	126	51	75
330	Barbers	273	440	11	4	15	0	15
381	Charwomen & Cleaners	370	540	27	5	32	0	32
332	Hairdressers & Cosmetologists	407	760	45	22	67	5	62
382	Janitors & Sextons	909	1,100	77	11	88	0	88
075	Practical Nurses	427	900	45	54	99	82	17
	Other Service Workers (N.E.C.)	1,194	1,600	54	61	115	20	95
	LABORERS, EXCLUDING FARM & MINE	5,335	5,550	138	-155	-17	0	-17
	OCCUPATIONS NOT REPORTED	4,543						

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (6) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (5) is an adjusted annual demand. Those occupations which require a four-year college degree were not included in determining the annual demand.

The Lancaster Labor Market Area includes Lancaster County.

TABLE 8

PENNSYLVANIA MANPOWER AND TRAINING DATA

Philadelphia Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	1,384,055	1,820,000	66,495	27,451	93,946	351,140	95,059	256,081
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	164,101	284,310	8,244	11,372	19,616	53,820	19,286	34,534
	Engineers, Technical	22,089	45,600	1,089	1,744	2,833	11,332	1,664	9,668
002	Engineers, Aeronautical	495	690	16	27	43	172	188	-16
008	Engineers, Chemical	1,322	2,360	57	97	154	616	116	500
005	Engineers, Civil	2,569	4,770	118	189	307	1,228	55	1,173
003	Engineers, Electrical	5,283	10,900	271	478	749	2,996	317	2,679
012	Engineers, Industrial	2,620	6,110	150	242	392	1,568	32	1,536
007	Engineers, Mechanical	4,488	8,400	208	334	542	2,168	195	1,973
011	Engineers, Metallurgical	466	970	23	41	64	256	26	230
010	Engineers, Mining	36	40	0	0	0	0	0	0
	Engineers, Sales	2,364	3,690	91	145	236	944	0	944
	Other Engineers Technical	2,446	5,670	139	225	364	1,456	735	721
	Natural Scientists	3,791	8,580	213	341	554	32	137	-105
040	Agricultural Scientists	67	160	2	4	6	24	98	-74
041	Biological Scientists	313	840	19	32	51	204	-	-
022	Chemists	2,712	5,770	115	230	345	1,380	-	-
024	Geologists & Geophysicists	43	70	0	0	0	0	-	-
020	Mathematicians	196	530	12	19	31	124	-	-
023	Physicists	418	1,110	25	42	67	268	-	-
	Other Natural Scientists	42	100	1	1	2	8	39	-31
	Technicians Excl. Medical & Dental	12,994	27,990	865	1,258	2,123	8,492	3,452	5,040
017	Designers	2,379	4,460	132	176	308	1,232	86	1,146
726	Electrical & Electronic	2,874	5,870	144	292	436	1,744	2,893	-1,149
193	Radio Operators	303	430	9	10	19	76	71	5
018	Surveyors	309	990	23	37	60	240	0	240
	Technicians, Other	6,929	16,240	550	744	1,294	5,176	402	4,774
	Medical, Other Health Workers	33,030	62,310	1,930	2,491	4,421	11,700	4,199	7,501
	Chiropractors & Therapists	1,150	1,450	38	59	97	388	0	388
072	Dentists	2,123	3,370	83	134	217	868	-	-
077	Dietitians & Nutritionists	693	4,340	38	41	79	316	0	316
075	Nurses, Professional	12,941	24,500	685	905	1,590	6,360	894	5,466
079	Nurses, Student	1,937	4,410	176	176	352	1,408	0	1,408
079	Optometrists	364	645	15	25	40	160	-	-
071	Osteopaths	193	1,110	27	44	71	284	-	-
074	Pharmacists	2,620	3,100	76	124	200	800	-	-
070	Physicians & Surgeons	7,047	11,485	285	480	765	3,060	-	-
045	Psychologists	335	1,060	28	42	70	280	-	-
079	Technicians, Medical & Dental	3,449	9,800	440	440	880	3,520	3,305	215
073	Veterinarians	178	410	9	15	24	96	-	-
	Teachers	31,272	54,420	1,881	2,689	4,570	1,868	535	1,333
092	Teachers, Elementary	15,342	21,800	827	891	1,718	6,872	-	-
091	Teachers, Secondary	8,900	17,360	588	658	1,246	4,984	-	-
099	Teachers, Other Excl. College	3,336	6,620	203	264	467	1,868	535	1,333
090	Teachers, College	3,694	8,010	246	320	566	2,264	-	-
	Social Scientists	1,027	1,830	44	71	115	284	1	283
050	Economists	399	610	14	23	37	148	-	-
020	Statisticians & Actuaries	567	1,090	25	42	67	268	0	268
059	Other Social Scientists	61	130	1	3	4	16	1	15
	Other Prof., Tech., & Kindred Workers	59,081	86,210	2,239	3,446	5,685	20,112	9,298	10,814
160	Accountants & Auditors	12,162	17,900	447	715	1,162	4,648	67	4,581
001	Architects	734	1,070	24	40	64	256	153	103
017	Draftsmen	6,718	11,440	285	501	786	3,144	2,373	771
110	Lawyers & Judges	4,352	6,050	150	240	390	1,560	-	-
166	Personnel & Labor Relation Wkrs.	2,285	4,420	109	175	284	1,136	-	-
195	Social & Welfare Workers (N.E.C.)	2,372	4,920	176	219	395	1,580	3	1,577
	Prof., Tech., Kindred Workers	30,256	40,410	1,048	1,573	2,621	10,484	6,702	3,782
421	FARMERS AND FARM WORKERS	10,549	9,100	317	-162	155	620	462	158
185	MANAGERS, OFFICIALS & PROPRIETORS	106,094	143,180	3,864	-570	3,294	13,176	1,542	11,634
200	CLERICAL & KINDRED WORKERS	235,429	341,500	11,951	8,195	20,146	80,584	39,319	41,265
217	Accounting Clerks & Bkprs.	17,255	23,210	714	579	1,297	5,188	6,936	-1,748
212	Bank Tellers	2,490	5,270	177	124	301	1,204	0	1,204
211	Cashiers	9,921	20,270	769	484	1,253	5,012	329	4,683
219	Office Machine Operators	9,558	23,290	976	697	1,673	6,692	2,828	3,864
232	Postal Clerks	5,854	6,240	160	147	307	1,228	-	1,228
237	Receptionists	2,489	3,940	156	117	273	1,092	586	506
201	Secretaries	37,481	61,960	2,600	1,982	4,582	18,328	11,178	7,150
222	Shipping & Receiving Clerks	9,966	10,390	268	247	515	2,060	35	2,025

TABLE 8-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
202	Stenographers	5,391	8,800	366	278	644	2,576	2,238	338
223	Stock Clerks & Storekeepers	7,969	16,250	648	485	1,133	4,532	130	4,402
235	Telephone Operators	8,221	9,540	426	198	624	2,496	193	2,303
203	Typists	16,701	25,460	1,144	583	1,727	6,908	3,710	3,198
209	Other Clerical & Kindred Workers	101,933	126,880	3,677	2,282	5,959	23,836	11,156	12,680
250	SALES WORKERS	105,629	144,320	4,472	1,730	6,202	24,808	5,870	18,938
258	Advertising Agents & Sales men	571	860	21	10	31	124	4,479	-4,355
297	Demonstrators	504	710	19	6	25	100	179	-79
250	Insurance Agents, Brokers & Underwriters.	8,412	11,160	288	128	416	1,664	33	1,631
251	Real Estate Agents & Brokers	3,646	5,410	144	67	211	844	0	844
259	Stock & Bond Salesmen	1,200	1,180	11	3	14	56	0	56
	Other Sales Workers (N.E.C.)	91,296	125,000	3,872	1,498	5,370	21,480	1,179	20,301
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	193,917	260,560	7,294	5,211	12,505	50,020	13,989	36,031
	Construction Craftsmen	45,350	59,560	1,963	1,247	3,210	12,840	2,488	10,352
861	Bricklayers, Stone, Tile	3,981	4,890	236	76	312	1,248	83	1,165
860	Carpenters	10,849	13,040	492	235	727	2,908	698	2,210
820	Electricians	7,791	10,470	301	249	550	2,200	869	1,331
850	Excavating, Grading Oprs.	1,616	3,090	80	133	213	852	59	793
840	Painters & Paperhangers	8,005	9,070	406	180	586	2,344	283	2,061
942	Plasters	1,284	1,810	44	6	50	200	0	200
862	Plumbers & Pipefitters	8,559	12,070	323	360	683	2,732	332	2,400
866	Roofers & Slaters	1,447	2,280	56	9	65	260	0	260
999	Structural Metal Workers	1,817	2,840	69	26	95	380	164	216
	Foremen, (N.E.C.)	27,212	41,830	1,044	417	1,461	5,844	0	5,844
	Metalwkrg. Craftsmen	25,780	28,820	718	1,151	1,869	7,476	2,000	5,476
610	Blacksmiths, Forgemen, Hammermen	486	540	12	26	38	96	0	96
805	Boilermakers	707	780	18	6	24	44	0	44
504	Heat Treaters, Annealers	508	470	11	0	11	2,760	0	2,760
600	Machinists	14,492	15,390	384	306	690	152	1,676	-1,524
638	Millwrights	975	1,430	34	27	61	244	107	137
804	Sheet Mtl. Wkrs.	3,870	5,030	124	48	172	688	192	496
601	Toolmakers, Diemakers	4,742	5,180	126	231	357	1,428	25	1,403
	Mechanics & Repairmen	45,776	79,270	1,979	1,821	3,800	15,200	7,232	7,968
827	Air Condt. Heating & Refrigmen.	1,442	2,070	50	39	89	356	1,527	-1,171
621	Airplane	855	1,180	27	9	36	144	6	138
620	Motor Vehicles	12,364	18,380	457	550	1,007	4,028	4,096	-68
633	Office Machine Repairmen	612	1,250	30	75	105	420	165	255
720	Radio & TV Repairmen	1,981	2,960	72	58	130	520	589	-69
	Other Mechanics & Repairmen	28,522	53,430	1,280	745	2,025	8,100	849	7,251
	Printing Trades Craftsmen	9,404	10,240	254	48	302	1,208	1,014	194
650	Compositors & Typesetters	5,493	4,830	119	2	121	484	506	-22
974-5	Electro & Stereotypers	376	560	13	0	13	52	86	-34
971-2	Engravers & Lithographers	1,217	1,620	38	32	70	280	73	207
651	Pressmen & Plate Printers	2,318	3,230	78	24	102	408	349	59
	Other Craftsmen & Kindred Workers	40,589	40,840	977	570	1,547	6,188	1,255	4,933
526	Bakers	3,561	4,630	113	48	161	644	48	596
660	Cabinetmakers	1,207	1,500	36	20	56	224	546	-322
921	Cranesmen, Derrickmen, Hoistmen	2,931	4,820	119	79	198	792	0	792
168	Inspectors	2,124	3,550	87	34	121	484	0	484
700	Jewelers, Watchmkrs, Gold & Silversmiths	681	910	20	7	27	108	0	108
821	Linemen & Servicemen	5,416	7,770	192	114	306	1,224	144	1,080
628	Loom Fixers	406	360	7	1	8	32	0	32
711	Opticians, Lens Grinders & Polishers	314	710	16	2	18	72	0	72
777	Pattern & Model Mkrs., Except Paper	1,280	1,880	46	17	63	252	121	131
950	Stationary Engineers	7,153	8,330	206	79	285	1,140	19	1,121
780	Upholsters	1,139	1,830	43	24	67	268	120	148
	Craftsmen (N.E.C.)	14,177	4,610	247	99	346	1,384	257	1,127
	OPERATIVES & KINDRED WORKERS	280,259	342,650	13,759	-3,087	10,672	42,688	8,964	33,724
	Apprentices	1,793	2,540	61	100	161	644	0	644
739	Assemblers	11,042	15,500	464	-1,161	-697	-2,788	1	-2,787
720	Checkers, Examiners & Inspectors, Mfg.	11,182	20,850	666	207	873	3,492	0	3,492
906	Deliverymen, Routemen, Cab Drivers	15,186	21,650	604	216	820	3,280	0	3,280
502	Furnacemen, Smeltermen & Pourers	1,124	1,360	33	-11	22	88	0	88
504	Heaters, Metal	138	250	5	0	5	20	0	20
361	Laundry & Dry Cleaning	7,397	8,730	436	110	546	2,184	13	2,171
939	Mine Operatives, Mine Laborers (N.E.C.)	339	340	6	0	6	24	0	24
316	Meat Cutters, Exc. Slaughter & Paking House	3,870	5,850	144	21	165	660	332	328
952	Power Station Operators	503	840	19	-3	16	64	41	23
904	Truck & Tractor Drivers	27,101	39,250	980	784	1,764	7,056	0	7,056
819	Welders & Flame Cutters	8,974	14,980	373	298	671	2,684	1,065	1,619
	Semiskilled Textile Occup.	21,247	24,100	1,205	-46	1,159	4,636	6,594	-1,958

TABLE 8-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1960 1/	PROJECTED EMPLOYMENT 1975 1/	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND	4 YEAR DEMAND 3/	4 YEAR SUPPLY 4/	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
685	Knitters, Loopers, Toppers	1,456	1,960	76	0	76	304	412	- 108
689	Sewers & Stitchers, Mfg.	17,563	20,500	819	-18	801	512	6,182	- 5,670
682	Spinners, Textile	545	390	13	0	13	3,204	0	3,204
683	Weavers, Textile	1,682	1,250	128	0	128	52	0	52
	Other Operatives (N.E.C.)	149,117	187,070	11,596	-559	11,037	44,148	918	43,230
	SERVICE WORKERS, PRIVATE HOUSEHOLD	34,419	43,980	1,714	41	1,755	7,020	20	7,000
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	118,437	192,000	13,438	6,335	19,773	79,092	5,607	73,485
	Protective Service Workers	18,188	29,180	1,194	961	2,155	8,620	24	8,596
373	Firemen, Fire Protection	2,900	4,330	146	102	248	992	6	986
375	Policemen , Marshals	7,703	14,970	491	657	1,148	4,592	18	4,574
379	Guards, Watchmen	7,079	9,880	285	275	560	2,240	0	2,240
	Waiters, Cooks & Bartenders	42,276	69,950	7,623	2,446	10,069	40,276	950	39,326
312	Bartenders	5,737	8,770	260	233	493	1,972	163	1,809
314	Cooks	7,992	13,300	731	597	1,327	5,308	698	4,610
317	Counter & Fountain Workers	4,366	9,440	471	376	847	3,388	0	3,388
311	Kitchen Workers (N.E.C.)	6,129	9,990	456	376	832	3,328	14	3,314
311	Waiters & Waitresses	16,217	28,470	596	425	1,021	4,084	75	4,009
	Other Service Workers	57,973	86,870	3,898	2,040	5,938	23,752	4,262	19,490
355	Attendants, Hospital & Inst.	5,630	16,460	987	740	1,727	6,908	1,503	5,405
330	Barbers	3,747	6,450	159	63	222	888	24	864
381	Charwomen & Cleaners	5,997	8,900	444	87	531	2,124	13	2,111
332	Hairdressers & Cosmetologists	6,233	12,540	750	375	1,125	4,500	1,017	3,483
382	Janitors & Sextons	9,287	12,370	864	122	986	3,944	74	3,870
075	Practical Nurses	5,063	12,900	645	774	1,419	5,676	1,631	4,045
	Other Service Workers (N.E.C.)	18,788	23,250	764	858	1,622	6,488	371	6,117
	LABORERS, EXCLUDING FARM & MINE	56,582	58,240	1,442	-1,614	-172	-688	0	-688
	OCCUPATIONS NOT REPORTED	78,639							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Philadelphia Labor Market includes the following counties: Bucks, Chester, Delaware, Montgomery and Philadelphia.

Note: Burlington, Camden and Gloucester counties, New Jersey, statistical data are not included in this table.

Expected values were estimated for 1960 census where data was not available, (Chester County).

TABLE 9

PENNSYLVANIA MANPOWER AND TRAINING DATA

Pittsburgh Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	832,138	952,000	32,847	14,073	46,920	174,932	80,708	94,224
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	100,535	152,500	4,422	6,100	10,522	29,340	15,246	14,094
	Engineers, Technical	14,574	22,780	567	910	1,477	5,908	859	5,049
002	Engineers, Aeronautical	15	25	0	0	0	0	225	-225
008	Engineers, Chemical	973	1,345	31	55	86	344	97	247
005	Engineers, Civil	2,077	3,125	77	125	202	808	315	493
003	Engineers, Electrical	2,627	4,290	106	188	294	1,176	9	1,167
012	Engineers, Industrial	2,043	3,770	93	150	243	972	0	972
007	Engineers, Mechanical	2,315	3,440	84	137	221	884	21	863
011	Engineers, Metallurgical	1,861	2,900	71	125	196	784	85	699
010	Engineers, Mining	220	270	5	9	14	56	0	56
	Engineers, Sales	1,420	1,750	42	69	111	444	0	444
	Other Engineers Technical	1,023	1,865	46	73	119	476	107	369
	Natural Scientists	2,598	4,600	114	182	296	12	83	-71
040	Agricultural Scientists	13	30	0	0	0	0	44	-44
041	Biological Scientists	86	180	4	6	10	40	-	-
022	Chemists	1,866	3,180	62	126	188	752	-	-
024	Geologists & Geophysicists	174	210	4	7	11	44	-	-
020	Mathematicians	101	250	5	9	14	56	-	-
023	Physicists	316	670	15	25	40	160	-	-
	Other Natural Scientists	42	80	1	2	3	12	39	-27
	Technicians Excl. Medical & Dental	7,118	12,550	387	564	951	3,804	4,130	-326
017	Designers	579	900	24	35	59	236	658	-422
726	Electrical & Electronic	1,182	2,000	48	98	146	584	3,141	-2,557
193	Radio Operators	374	395	8	10	18	72	0	72
018	Surveyors	422	650	15	24	39	156	0	156
	Technicians, Other	4,561	8,605	291	393	684	2,736	331	2,405
	Medical, Other Health Workers	20,224	32,220	966	1,287	2,283	6,888	1,248	5,640
	Chiropractors & Therapists	759	970	25	39	64	256	12	244
072	Dentists	1,297	1,745	43	69	112	448	-	-
077	Dietitians & Nutritionists	349	415	16	18	34	136	182	-46
075	Nurses, Professional	8,863	13,775	384	508	892	3,568	233	3,335
079	Nurses, Student	2,809	5,100	204	204	408	1,632	53	1,579
079	Optometrists	187	300	6	11	17	68	-	-
071	Osteopaths	24	70	1	2	3	12	-	-
074	Pharmacists	1,408	1,565	37	60	97	388	-	-
070	Physicians & Surgeons	2,969	4,095	101	170	271	1,084	-	-
045	Psychologists	215	430	10	16	26	104	-	-
079	Technicians, Medical & Dental	1,464	3,643	162	162	324	1,296	768	528
073	Veterinarians	60	110	1	2	3	12	-	-
	Teachers	21,105	30,150	1,053	1,506	2,559	856	233	623
092	Teachers, Elementary	10,969	12,900	489	528	1,017	4,068	-	-
091	Teachers, Secondary	6,534	10,450	355	396	751	3,004	-	-
099	Teachers, Other Excl. College	1,797	3,050	92	122	214	856	233	623
090	Teachers, College	1,805	3,750	114	149	263	1,052	-	-
	Social Scientists	499	710	17	28	45	96	5	91
050	Economists	221	270	6	10	16	84	-	-
020	Statisticians & Actuaries	271	430	9	16	24	96	0	96
059	Other Social Scientists	7	10	0	0	0	0	5	-5
	Other Prof., Tech., & Kindred Workers	34,417	49,490	1,285	1,978	3,263	11,776	8,688	3,088
160	Accountants & Auditors	6,959	8,800	218	350	568	2,272	170	2,102
001	Architects	371	450	9	18	27	108	27	81
017	Draftsmen	5,230	7,500	187	329	516	2,064	3,399	-1,335
110	Lawyers & Judges	2,311	2,750	68	108	176	704	-	-
166	Personnel & Labor Relation Wkrs.	1,371	2,200	54	87	141	564	-	-
195	Social & Welfare Workers (N.E.C.)	1,192	2,200	77	97	174	696	0	696
	Prof., Tech., Kindred Workers	16,983	25,590	663	996	1,659	6,636	5,092	1,544
421	FARMERS AND FARM WORKERS	6,330	7,000	247	-126	121	484	355	129
185	MANAGERS, OFFICIALS & PROPRIETORS	58,227	67,700	1,826	-270	1,556	6,224	1,071	5,153
200	CLERICAL & KINDRED WORKERS	128,573	162,500	5,687	3,899	9,586	38,344	42,696	-4,352
217	Accounting Clerks & Bkprs.	8,786	10,150	313	252	565	2,260	6,629	-4,369
212	Bank Tellers	1,833	3,100	103	72	175	700	0	700
211	Cashiers	5,614	9,830	371	235	606	2,424	405	2,019
219	Office Machine Operators	3,978	8,630	361	257	618	2,472	3,189	-717
232	Postal Clerks	2,933	2,700	97	75	172	688	0	688
237	Receptionists	1,811	2,400	69	59	128	512	264	248
201	Secretaries	20,031	27,800	1,166	887	2,053	8,212	13,976	-5,764
222	Shipping & Receiving Clerks	4,664	4,300	109	101	210	840	0	840

TABLE 9-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960	PROJECTED EMPLOYMENT 1/ 1975	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND	4 YEAR DEMAND 3/	4 YEAR SUPPLY 4/	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
202	Stenographers	5,937	8,430	352	267	619	2,476	2,093	383
223	Stock Clerks & Storekeepers	4,255	7,600	303	227	530	2,120	61	2,059
235	Telephone Operators	4,448	4,500	200	93	293	1,172	0	1,172
203	Typists	5,159	7,180	321	164	485	1,940	4,472	-2,532
209	Other Clerical & Kindred Workers	59,124	65,880	1,908	1,184	3,092	12,368	11,607	761
250	SALES WORKERS	68,215	80,400	2,489	963	3,452	13,808	4,886	8,922
258	Advertising Agents & Salesmen	384	500	12	5	17	68	3,769	-3,701
297	Demonstrators	233	280	6	2	8	32	119	-87
250	Insurance Agents, Brokers & Underwrters.	4,630	5,130	131	60	191	764	0	764
251	Real Estate Agents & Brokers	1,708	2,100	57	25	82	332	0	332
259	Stock & Bond Salesmen	385	460	4	1	5	20	0	20
	Other Sales Workers (N.E.C.)	60,815	71,330	2,224	860	3,084	12,336	998	11,338
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	137,141	151,500	4,241	3,030	7,271	29,084	8,799	20,285
	Construction Craftsmen	30,486	33,770	1,112	707	1,819	7,276	2,047	5,229
861	Brickmasons, Stone, Tile	3,942	4,100	204	64	268	1,072	121	951
860	Carpenters	7,247	7,080	217	105	322	1,288	596	692
820	Electricians	5,541	6,200	178	147	325	1,300	1,019	281
850	Excavating, Grading Oprs.	1,809	2,650	70	120	190	760	17	743
840	Painters & Paperhangers	3,691	3,610	161	71	232	928	77	851
842	Plasters	856	1,020	23	3	26	104	0	104
862	Plumbers & Pipefitters	6,380	5,348	170	190	360	1,440	142	1,298
866	Roofers & Slaters	856	1,160	28	4	32	128	0	128
899	Structural Metal Workers	1,196	1,570	37	13	50	200	75	125
	Foremen, (N.E.C.)	18,932	22,000	549	220	769	3,076	0	3,076
	Metalwkrg. Craftsmen	17,701	18,090	451	721	1,172	4,688	1,387	3,301
610	Blacksmiths, Forgemen, Hammermen	930	720	17	37	54	216	6	210
805	Boilermakers	905	840	19	6	25	100	7	93
504	Heat Treaters, Annealers	677	580	11	0	11	44	0	44
600	Machinists	8,840	8,650	215	234	449	1,796	1,169	627
638	Millwrights	3,215	4,040	100	80	180	720	48	672
804	Sheet Mtl. Wkrs.	1,245	1,460	34	13	47	188	117	71
601	Toolmakers, Diemakers	1,889	1,800	44	80	124	496	40	456
	Mechanics & Repairmen	29,709	40,320	907	926	1,933	7,732	4,192	3,540
827	Air Condt. Heating & Refrigmen.	777	920	22	16	38	152	182	-30
621	Airplane	291	330	8	6	14	56	394	-338
620	Motor Vehicles	8,120	10,060	250	301	551	2,204	2,387	-183
633	Office Machine Repairmen	399	720	17	42	59	236	0	236
720	Radio & TV Repairmen	1,001	1,650	40	32	72	288	222	66
	Other Mechanics & Repairmen	19,121	26,640	638	371	1,009	4,036	1,007	3,029
	Printing Trades Craftsmen	3,315	3,090	76	13	89	356	202	154
650	Compositors & Typesetters	2,063	1,550	37	1	38	152	152	0
974-5	Electro & Stereotypers	117	150	2	0	2	8	0	8
971-2	Engravers & Lithographers	394	500	10	8	18	72	73	-1
651	Pressmen & Plate Printers	741	890	21	5	26	104	349	-245
	Other Craftsmen & Kindred Workers	36,998	34,230	820	477	1,297	5,188	971	4,217
526	Bakers	1,926	2,250	55	24	79	316	135	181
660	Cabinetmakers	499	540	12	6	18	72	217	-145
921	Cranesmen, Derrickmen, Hoistmen	8,198	10,930	272	184	456	1,824	0	1,824
168	Inspectors	3,392	4,730	117	46	163	652	13	639
700	Jewelers, Watchmkrs, Gold & Silversmiths	282	340	7	2	9	36	6	30
821	Linemen & Servicemen	3,380	4,100	101	60	161	644	0	644
628	Loom Fixers	0	0	0	0	0	0	0	0
711	Opticians, Lens Grinders & Polishers	308	370	8	1	9	36	16	20
777	Pattern & Model Mkrs., Except Paper	861	1,130	27	9	36	144	206	-62
950	Stationary Engineers	5,161	5,050	125	24	149	596	11	585
780	Upholsters	297	400	8	5	13	52	52	0
	Craftsmen (N.E.C.)	12,694	4,390	237	96	333	1,332	315	1,017
	OPERATIVES & KINDRED WORKERS	45,915	154,000	4,620	-1,385	3,235	12,940	2,660	10,280
	Apprentices	1,399	1,670	41	66	107	428	0	428
739	Assemblers	3,559	4,400	131	-329	-198	-792	0	-792
720	Checkers, Examiners & Inspectors, Mfg.	5,857	8,400	267	82	349	1,396	0	1,396
906	Deliverymen, Routemen, Cab Drivers	6 563	7,900	228	81	309	1,236	0	1 236
502	Furnacemen, Smeltermen & Pourers	4,175	3,730	91	-35	56	224	0	224
504	Heaters, Metal	1,074	1,280	29	2	31	124	0	124
361	Laundry & Dry Cleaning	4,327	4,390	218	56	274	1,096	14	1,082
939	Mine Operatives, Mine Laborers (N.E.C.)	5,745	5,250	130	-11	120	480	0	480
316	Meat Cutters, Exc. Slaughter & Paking House	2,517	2,920	72	10	82	328	46	282
952	Power Station Operators	460	550	12	-2	10	40	63	-23
904	Truck & Tractor Drivers	19,144	24,100	595	476	1,071	4,284	0	4,284
819	Welders & Flame Cutters	7,349	9,300	231	185	416	1,664	1,308	356
	Semiskilled Textile Occup.	1,366	1,390	68	-1	67	268	784	-516

TABLE 9-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1960 [1]	PROJECTED EMPLOYMENT 1975 [1]	ANNUAL WITH-DRAWAL [2]	ANNUAL GROWTH [2]	ANNUAL DEMAND	4 YEAR DEMAND [3]	4 YEAR SUPPLY [4]	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
685	Knitters, Loopers, Toppers	12	17	0	0	0	0	236	-236
689	Sewers & Stitchers, Mfg.	1,332	1,360	53	0	53	212	548	-336
682	Spinners, Textile	4	3	0	0	0	0	0	0
683	Weavers, Textile	18	10	1	0	1	4	0	4
	Other Operatives (N.E.C.)	82,380	78,720	4,879	-235	4,644	18,576	445	18,131
	SERVICE WORKERS, PRIVATE HOUSEHOLD	13,311	15,000	584	13	597	2,388	79	2,309
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	73,169	104,400	7,307	3,444	10,751	43,004	4,916	38,088
	Protective Service Workers	9,408	14,000	572	460	1,032	4,128	73	4,055
373	Firemen, Fire Protection	1,461	2,000	66	46	112	448	0	448
375	Policemen, Marshals	4,032	7,400	242	324	566	2,264	73	2,191
379	Guards, Watchmen	3,915	4,600	132	126	258	1,032	0	1,032
	Waiters, Cooks & Bartenders	25,318	36,000	3,922	1,258	5,180	20,720	835	19,885
312	Bartenders	4,094	5,260	156	159	295	1,180	0	1,180
314	Cooks	5,301	7,460	409	333	742	2,968	763	2,205
317	Counter & Fountain Workers	1,915	3,450	172	136	308	1,232	12	1,220
311	Kitchen Workers (N.E.C.)	3,937	5,430	248	204	452	1,808	27	1,781
311	Waiters & Waitresses	10,071	14,400	301	214	515	2,060	33	2,027
	Other Service Workers	38,443	54,400	2,282	1,195	3,477	13,908	3,756	10,152
355	Attendants, Hospital & Inst.	4,960	10,800	647	405	1,132	4,528	1,682	2,846
330	Barbers	2,196	3,130	76	31	107	428	16	412
381	Charwomen & Cleaners	3,225	4,530	225	44	269	1,076	0	1,076
332	Hairdressers & Cosmetologists	3,987	6,600	395	197	592	2,368	604	1,764
382	Janitors & Sextons	9,741	10,340	719	102	821	3,284	8	3,276
075	Practical Nurses	2,492	5,000	250	300	550	2,200	1,446	754
	Other Service Workers (N.E.C.)	11,842	14,000	464	519	983	3,932	252	3,680
	LABORERS, EXCLUDING FARM & MINE	65,987	57,000	1,424	-1,595	-171	-684	0	-684
	OCCUPATIONS NOT REPORTED	34,735							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Pittsburgh Labor Market Area includes the following counties: Allegheny, Beaver, Washington and Westmoreland.

TABLE 10

PENNSYLVANIA MANPOWER AND TRAINING DATA

Reading Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	117,000	140,600	4,780	1,441	6,221	23,352	7,934	15,418
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	9,959	15,500	449	620	1,069	2,744	1,341	1,403
	Engineers, Technical	964	1,630	40	65	105	420	90	330
002	Engineers, Aeronautical	0	0	0	0	0	0	0	0
008	Engineers, Chemical	37	60	1	2	3	12	54	-42
005	Engineers, Civil	137	220	5	8	13	52	0	52
003	Engineers, Electrical	238	400	10	17	27	108	5	103
012	Engineers, Industrial	149	290	7	11	18	72	0	72
007	Engineers, Mechanical	212	330	8	13	21	84	22	62
011	Engineers, Metallurgical	79	130	3	5	8	32	9	23
010	Engineers, Mining	4	5	0	0	0	0	0	0
	Engineers, Sales	27	40	1	1	2	8	0	8
	Other Engineers Technical	81	155	3	6	9	36	0	36
	Natural Scientists	191	360	9	14	23	4	27	-23
040	Agricultural Scientists	4	10	0	0	0	0	7	-7
041	Biological Scientists	9	20	0	0	0	0	-	-
022	Chemists	163	290	5	11	16	64	-	-
024	Geologists & Geophysicists	0	0	0	0	0	0	-	-
020	Mathematicians	3	10	0	0	0	0	-	-
023	Physicists	0	5	0	0	0	0	-	-
	Other Natural Scientists	12	25	0	1	1	4	20	-16
	Technicians Excl. Medical & Dental	839	1,590	49	71	120	480	309	171
017	Designers	90	150	4	6	10	40	43	-3
726	Electrical & Electronic	124	220	5	11	16	64	257	-193
193	Radio Operators	19	30	0	0	0	0	0	0
018	Surveyors	58	90	2	3	5	20	0	20
	Technicians, Other	548	1,100	37	50	87	348	9	339
	Medical, Other Health Workers	2,258	4,100	127	164	291	876	67	809
	Chiropractors & Therapists	52	80	2	3	5	20	0	20
072	Dentists	122	180	4	7	11	44	-	-
077	Dietitians & Nutritionists	29	40	1	1	2	8	67	-59
075	Nurses, Professional	1,003	2,000	56	74	130	520	0	520
079	Nurses, Student	425	720	28	28	56	224	0	224
079	Optometrists	19	30	0	1	1	4	-	-
071	Osteopaths	4	30	0	1	1	4	-	-
074	Pharmacists	92	100	2	4	6	24	-	-
070	Physicians & Surgeons	371	570	14	23	37	148	-	-
045	Psychologists	4	10	0	0	0	0	-	-
079	Technicians, Medical & Dental	120	310	13	13	26	104	0	104
073	Veterinarians	17	30	0	1	1	4	-	-
	Teachers	2,395	4,000	140	200	340	84	0	84
092	Teachers, Elementary	1,154	1,700	64	69	133	532	-	-
091	Teachers, Secondary	963	1,700	57	64	121	484	-	-
099	Teachers, Other Excl. College	177	300	9	12	21	84	0	84
090	Teachers, College	101	300	9	12	21	84	-	-
	Social Scientists	34	60	1	2	3	0	0	0
050	Economists	22	30	0	1	1	4	-	-
020	Statisticians & Actuaries	12	20	0	0	0	0	-	-
059	Other Social Scientists	0	10	0	0	0	0	-	-
	Other Prof., Tech., & Kindred Workers	3,278	3,760	97	150	247	880	848	32
160	Accountants & Auditors	545	710	17	28	45	180	17	163
001	Architects	46	60	1	2	3	12	0	12
017	Draftsmen	486	720	18	31	49	196	366	-170
110	Lawyers & Judges	182	220	5	8	13	52	-	-
166	Personnel & Labor Relation Wkrs.	113	190	4	7	11	44	-	-
195	Social & Welfare Workers (N.E.C.)	104	200	7	9	16	64	0	64
	Prof., Tech., Kindred Workers	1,802	1,660	43	64	107	428	465	-37
421	FARMERS AND FARM WORKERS	3,902	4,200	147	-75	72	288	247	41
185	MANAGERS, OFFICIALS & PROPRIETORS	7,317	8,700	234	-34	200	800	97	703
200	CLERICAL & KINDRED WORKERS	13,360	18,500	647	444	1,091	4,364	4,275	89
217	Accounting Clerks & Bkprs.	893	1,060	32	26	58	232	1,005	-773
212	Bank Tellers	268	470	15	11	26	104	0	104
211	Cashiers	662	1,190	45	28	73	292	0	292
219	Office Machine Operators	410	910	38	27	65	260	366	-106
232	Postal Clerks	180	180	4	4	8	32	0	32
237	Receptionists	102	140	5	4	9	36	0	36
201	Secretaries	2,172	3,100	130	99	229	916	1,430	-514
222	Shipping & Receiving Clerks	747	720	18	17	35	140	0	140

TABLE 10-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960	PROJECTED EMPLOYMENT 1/ 1975	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND	4 YEAR DEMAND 3/	4 YEAR SUPPLY 4/	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
202	Stenographers	328	480	20	15	35	140	80	60
223	Stock Clerks & Storekeepers	606	1,100	44	33	77	308	2	306
235	Telephone Operators	483	500	22	10	32	128	0	128
203	Typists	324	740	33	17	50	200	417	-217
209	Other Clerical & Kindred Workers	5,985	7,900	229	142	371	1,484	975	509
250	SALES WORKERS	7,907	9,800	303	117	420	1,680	182	1,498
258	Advertising Agents & Salesman	44	60	1	0	1	4	142	-138
297	Demonstrators	43	50	1	0	1	4	0	4
250	Insurance Agents, Brokers & Underwrters.	731	830	21	9	30	120	0	120
251	Real Estate Agents & Brokers	170	220	5	2	7	28	0	28
259	Stock & Bond Salesmen	34	40	0	0	0	0	0	0
	Other Sales Workers (N.E.C.)	6,885	8,600	266	103	369	1,476	40	1,436
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	18,043	22,300	624	446	1,070	4,280	791	3,489
	Construction Craftsmen	3,691	4,110	135	86	221	884	190	694
861	Bricklayers, Stone, Tile	357	380	19	6	25	100	38	62
860	Carpenters	1,126	1,130	35	16	51	204	77	127
820	Electricians	507	580	16	13	29	116	37	79
850	Excavating, Grading Oprs.	261	390	10	17	27	108	7	101
840	Painters & Paperhangers	686	690	31	13	44	156	15	141
842	Plasters	132	160	4	0	4	16	0	16
862	Plumbers & Pipefitters	476	580	15	17	32	128	16	112
866	Roofers & Slaters	101	140	3	0	3	12	0	12
999	Structural Metal Workers	45	60	1	0	1	4	0	4
	Foremen, (N.E.C.)	2,721	3,390	84	33	351	1,404	0	1,404
	Metalwkrg. Craftsmen	2,249	2,160	54	86	140	560	158	402
610	Blacksmiths, Forgemen, Hammermen	63	50	1	2	3	12	0	12
805	Boilermakers	29	30	0	0	0	0	0	0
504	Heat Treaters, Annealers	148	120	3	0	3	12	0	12
600	Machinists	1,256	1,180	29	63	92	368	109	259
638	Millwrights	40	50	1	1	2	8	0	8
804	Sheet Mtl. Wkrs.	210	250	6	2	8	32	3	29
601	Toolmakers, Diemakers	503	480	12	21	33	132	46	86
	Mechanics & Repairmen	4,643	6,970	174	160	334	1,336	291	1,045
827	Air Condt. Heating & Refrigmen.	120	150	3	3	6	24	3	21
621	Airplane	48	60	1	0	1	4	0	4
620	Motor Vehicles	1,251	1,590	39	47	86	344	173	171
633	Office Machine Repairmen	35	70	1	4	5	20	30	-10
720	Radio & TV Repairmen	153	200	5	4	9	36	26	10
	Other Mechanics & Repairmen	3,036	4,900	117	68	185	740	59	681
	Printing Trades Craftsmen	468	450	11	2	13	52	34	18
650	Compositors & Typesetters	320	250	6	0	6	24	21	3
974-5	Electro & Stereotypers	5	5	0	0	0	0	0	0
971-2	Engravers & Lithographers	60	95	2	1	3	12	0	12
651	Pressmen & Plate Printers	83	100	2	0	2	8	19	-11
	Other Craftsmen & Kindred Workers	4,271	5,220	125	73	198	792	118	674
526	Bakers	311	370	9	4	13	52	0	52
660	Cabinetmakers	172	190	4	2	6	24	23	1
921	Cranesmen, Derrickmen, Hoistmen	472	650	16	11	27	108	0	108
168	Inspectors	325	470	11	4	15	60	0	60
700	Jewelers, Watchmkrs, Gold & Silversmiths	64	80	2	0	2	8	75	-67
821	Linemen & Servicemen	386	460	11	6	17	68	0	68
628	Loom Fixers	16	10	0	0	0	0	0	0
711	Opticians, Lens Grinders & Polishers	197	240	6	1	7	28	0	28
777	Pattern & Model Mkrs., Except Paper	189	230	5	2	7	28	0	28
950	Stationary Engineers	338	340	8	1	9	36	0	36
780	Upholsters	116	160	4	2	6	24	20	4
	Craftsmen (N.E.C.)	1,685	2,020	109	44	153	612	0	612
	OPERATIVES & KINDRED WORKERS	35,847	40,500	1,215	-364	851	3,404	437	2,967
	Apprentices	185	220	5	8	13	52	0	52
739	Assemblers	1,271	1,410	42	-105	-63	-252	0	-252
720	Checkers, Examiners & Inspectors, Mfg.	1,634	2,390	76	23	99	396	0	396
906	Deliverymen, Routemen, Cab Drivers	1,092	1,310	36	13	49	196	0	196
502	Furnacemen, Smeltermen & Pourers	350	320	8	-3	5	20	0	20
504	Heaters, Metal	23	30	0	0	0	0	5	-5
361	Laundry & Dry Cleaning	672	700	35	9	44	176	0	176
939	Mine Operatives, Mine Laborers (N.E.C.)	194	140	3	0	3	12	0	12
316	Meat Cutters, Exc. Slaughter & Paking House	257	310	7	1	8	32	0	32
952	Power Station Operators	37	50	1	0	1	4	0	4
904	Truck & Tractor Drivers	2,849	3,580	89	71	160	640	0	640
819	Welders & Flame Cutters	1,183	1,530	38	30	68	272	82	190
	Semiskilled Textile Occup.	6,644	6,890	344	-13	331	1,324	337	987

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
685	Knitters, Loopers, Toppers	1,803	1,900	76	-1	75	300	29	271
689	Sewers & Stitchers, Mfg.	4,690	4,900	196	-4	192	24	0	24
682	Spinners, Textile	51	30	1	0	1	768	0	768
683	Weavers, Textile	100	60	6	0	6	4	308	-304
	Other Operatives (N.E.C.)	19,436	21,620	1,340	-64	1,276	5,104	13	5,091
	SERVICE WORKERS, PRIVATE HOUSEHOLD	1,530	1,900	74	1	75	300	0	300
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	8,837	13,500	945	445	1,390	5,360	564	4,996
	Protective Service Workers	956	1,400	57	46	103	412	0	412
373	Firemen, Fire Protection	68	130	5	3	8	32	0	32
375	Policemen, Marshals	296	530	18	24	42	168	0	168
379	Guards, Watchmen	592	700	20	19	39	156	0	156
	Waiters, Cooks & Bartenders	3,890	5,670	618	198	816	3,264	84	3,180
312	Bartenders	552	730	21	19	40	160	0	160
314	Cooks	937	1,350	74	60	134	536	84	452
317	Counter & Fountain Workers	289	530	26	21	47	188	0	188
311	Kitchen Workers (N.E.C.)	672	950	43	36	79	316	0	316
311	Waiters & Waitresses	1,440	2,110	44	31	75	300	0	300
	Other Service Workers	3,991	5,830	244	128	372	1,488	480	1,008
355	Attendants, Hospital & Inst.	480	1,100	66	49	115	460	116	344
330	Barbers	318	460	11	4	15	60	3	57
381	Charwomen & Cleaners	409	540	27	5	32	128	0	128
332	Hairdressers & Cosmetologists	578	980	58	29	87	348	61	287
382	Janitors & Sextons	1,038	1,130	79	11	90	360	8	352
075	Practical Nurses	182	300	25	30	55	220	292	-72
	Other Service Workers (N.E.C.)	986	1,720	36	41	77	308	0	308
	LABORERS, EXCLUDING FARM & MINE	5,648	5,700	142	-159	-71	-68	0	-68
	OCCUPATIONS NOT REPORTED	4,750							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tomorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Reading Labor Market Area includes Berks County.

TABLE 11

PENNSYLVANIA MANPOWER AND TRAINING DATA

Scranton Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	83,707	95,800	3,242	1,071	4,313	16,296	5,609	10,687
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	7,398	11,200	324	448	772	2,132	676	1,456
	Engineers, Technical	550	860	21	34	55	220	16	204
002	Engineers, Aeronautical	4	5	0	0	0	0	0	0
008	Engineers, Chemical	12	20	0	0	0	0	0	0
005	Engineers, Civil	124	190	4	7	11	44	0	44
003	Engineers, Electrical	161	260	6	11	17	68	11	57
012	Engineers, Industrial	56	100	2	4	6	24	0	24
007	Engineers, Mechanical	95	140	3	5	8	32	0	32
011	Engineers, Metallurgical	3	10	0	0	0	0	0	0
010	Engineers, Mining	27	25	0	0	0	0	0	0
	Engineers, Sales	29	40	1	1	2	8	0	8
	Other Engineers Technical	37	70	1	2	3	12	5	7
	Natural Scientists	50	110	2	4	6	0	1	-1
040	Agricultural Scientists	0	0	0	0	0	0	1	-1
041	Biological Scientists	0	5	0	0	0	0	-	-
022	Chemists	42	70	1	2	3	12	-	-
024	Geologists & Geophysicists	0	5	0	0	0	0	-	-
020	Mathematicians	4	10	0	0	0	0	-	-
023	Physicists	0	5	0	0	0	0	-	-
	Other Natural Scientists	4	15	0	0	0	0	-	0
	Technicians Excl. Medical & Dental	340	590	18	26	44	176	150	26
017	Designers	37	60	1	2	3	12	21	-9
726	Electrical & Electronic	95	160	4	8	12	48	128	-80
193	Radio Operators	8	10	0	0	0	0	1	-1
018	Surveyors	69	110	2	4	6	24	0	24
	Technicians, Other	131	250	8	11	19	76	0	76
	Medical, Other Health Workers	1,805	3,370	104	134	238	736	23	713
	Chiropractors & Therapists	50	65	1	2	3	12	0	12
072	Dentists	168	190	4	7	11	44	-	-
077	Dietitians & Nutritionists	30	40	1	1	2	8	0	8
075	Nurses, Professional	770	1,600	44	59	103	412	16	396
079	Nurses, Student	239	500	20	20	40	160	0	160
079	Optometrists	22	30	0	1	1	4	-	-
071	Osteopaths	4	10	0	0	0	0	-	-
074	Pharmacists	113	120	3	4	7	28	-	-
070	Physicians & Surgeons	241	380	9	15	24	96	-	-
045	Psychologists	0	5	0	0	0	0	-	-
079	Technicians, Medical & Dental	164	420	18	18	36	144	7	137
073	Veterinarians	4	10	0	0	0	0	-	-
	Teachers	2,081	2,500	87	125	212	112	-	-
092	Teachers, Elementary	1,071	1,200	45	49	94	376	-	-
091	Teachers, Secondary	505	600	20	22	42	168	-	-
099	Teachers, Other Excl. College	245	400	12	16	28	112	0	112
090	Teachers, College	260	300	9	12	21	84	-	-
	Social Scientists	36	60	1	2	3	8	5	-
050	Economists	12	15	0	0	0	0	-	-
020	Statisticians & Actuaries	24	40	1	1	2	8	5	3
059	Other Social Scientists	0	5	0	0	0	0	0	0
	Other Prof., Tech., & Kindred Workers	2,536	3,710	96	148	244	880	481	404
160	Accountants & Auditors	442	560	14	22	36	144	42	102
001	Architects	16	20	0	0	0	0	-	0
017	Draftsmen	266	380	9	16	25	100	193	-93
110	Lawyers & Judges	185	220	5	8	13	52	-	-
166	Personnel & Labor Relation Wkrs.	90	140	3	5	8	32	-	-
195	Social & Welfare Workers (N.E.C.)	169	310	11	13	24	96	0	96
	Prof., Tech., Kindred Workers	1,368	2,080	54	81	135	540	241	299
421	FARMERS AND FARM WORKERS	863	800	28	-14	14	56	0	56
185	MANAGERS, OFFICIALS & PROPRIETORS	5,782	6,700	180	-26	154	616	246	370
200	CLERICAL & KINDRED WORKERS	11,181	14,600	511	350	861	3,444	3,957	-513
217	Accounting Clerks & Bkprs.	1,032	1,200	37	30	67	268	877	-609
212	Bank Tellers	162	270	9	6	15	60	0	60
211	Cashiers	513	890	33	21	54	216	0	216
219	Office Machine Operators	354	760	31	22	53	212	342	-130
232	Postal Clerks	278	260	6	6	12	24	0	24
237	Receptionists	95	130	5	3	8	32	0	32
201	Secretaries	1,236	1,710	71	54	125	500	1,524	1,024
222	Shipping & Receiving Clerks	616	600	15	14	29	116	60	56

TABLE 11--CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960	PROJECTED EMPLOYMENT 1/ 1975	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND	4 YEAR DEMAND 3/	4 YEAR SUPPLY 4/	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
202	Stenographers	306	450	18	14	32	128	114	14
223	Stock Clerks & Storekeepers	371	660	26	19	45	180	0	180
235	Telephone Operators	462	460	20	9	29	116	0	116
203	Typists	349	490	-2	11	33	132	306	-174
209	Other Clerical & Kindred Workers	5,407	6,720	194	120	314	1,256	734	522
250	SALES WORKERS	6,841	8,000	248	96	344	1,376	3	1,373
258	Advertising Agents & Salesmen	59	70	1	1	2	8	0	8
297	Demonstrators	21	30	0	0	0	0	1	-1
250	Insurance Agents, Brokers & Underwrters.	627	690	17	8	25	100	0	100
251	Real Estate Agents & Brokers	63	80	2	1	3	12	0	12
259	Stock & Bond Salesmen	32	40	0	0	0	0	0	0
	Other Sales Workers (N.E.C.)	6,039	7,090	219	85	304	1,216	2	1,214
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	10,964	13,400	375	268	643	2,572	354	2,218
	Construction Craftsmen	1,979	2,190	72	45	117	468	149	319
861	Bricklayers, Stone, Tile	104	110	5	1	6	104	0	104
860	Carpenters	591	590	18	8	26	24	31	-7
820	Electricians	281	320	9	7	16	64	16	48
850	Excavating, Grading Oprs.	209	300	8	13	21	84	102	-18
840	Painters & Paperhangers	353	340	15	6	21	84	0	84
842	Plasters	60	60	1	0	1	4	0	4
862	Plumbers & Pipefitters	268	320	8	9	17	68	0	68
866	Roofers & Slaters	58	80	2	0	2	8	0	8
399	Structural Metal Workers	55	70	1	0	1	4	0	4
	Foremen, (N.E.C.)	1,596	2,000	50	20	70	280	0	280
	Metalwkrg. Craftsmen	1,149	1,185	29	47	76	304	70	234
610	Blacksmiths, Forgemen, Hammermen	24	20	0	0	0	0	0	0
805	Boilermakers	11	15	0	0	0	0	0	0
504	Heat Treaters, Annealers	13	15	0	0	0	136	0	136
600	Machinists	779	790	19	15	34	0	70	-70
638	Millwrights	9	15	0	0	0	0	0	0
804	Sheet Mtl. Wkrs.	110	130	3	1	4	16	0	16
601	Toolmakers, Diemakers	203	200	5	9	14	56	0	56
	Mechanics & Repairmen	3,168	4,370	109	100	209	836	56	780
827	Air Condt. Heating & Refrigmen.	63	70	1	1	2	8	11	-3
621	Airplane	14	15	0	0	0	0	0	0
620	Motor Vehicles	884	1,090	27	32	59	236	24	212
633	Office Machine Repairmen	30	55	1	3	4	8	0	8
720	Radio & TV Repairmen	144	180	4	3	7	28	20	8
	Other Mechanics & Repairmen	2,033	2,960	71	41	112	448	1	447
	Printing Trades Craftsmen	573	540	13	2	15	60	22	38
650	Compositors & Typesetters	358	270	6	0	6	24	15	9
974-5	Electro & Stereotypers	9	10	0	0	0	0	0	0
971-2	Engravers & Lithographers	27	50	1	1	2	8	0	8
651	Pressmen & Plate Printers	179	210	5	1	6	24	7	17
	Other Craftsmen & Kindred Workers	2,499	3,115	74	43	117	468	57	411
526	Bakers	355	410	10	4	14	56	0	56
660	Cabinetmakers	96	100	2	1	3	12	43	-31
921	Cranesmen, Derrickmen, Hoistmen	75	100	2	1	3	12	0	12
168	Inspectors	342	480	12	4	16	64	0	64
700	Jewelers, Watchmkrs, Gold & Silversmiths	45	50	1	0	1	4	0	4
821	Linemen & Servicemen	303	350	10	8	18	72	0	72
628	Loom Fixers	38	50	1	0	1	4	0	4
711	Opticians, Lens Grinders & Polishers	28	40	1	0	1	4	0	4
777	Pattern & Model Mkrs., Except Paper	11	20	0	0	0	0	0	0
950	Stationary Engineers	207	215	5	1	6	24	14	10
780	Upholsters	64	90	2	1	3	12	0	12
	Craftsmen (N.E.C.)	915	1,210	65	26	91	364	0	364
	OPERATIVES & KINDRED WORKERS	26,420	28,400	852	255	597	2,388	205	2,183
	Apprentices	81	90	2	3	5	20	0	20
739	Assemblers	911	980	29	-73	-44	-176	0	-176
720	Checkers, Examiners & Inspectors, Mfg.	1,098	1,560	49	15	64	256	0	256
906	Deliverymen, Routemen, Cab Drivers	770	900	25	9	34	136	0	136
502	Furnacemen, Smeltermen & Pourers	29	20	0	0	0	0	0	0
504	Heaters, Metal	0	0	0	0	0	0	0	0
361	Laundry & Dry Cleaning	407	410	20	5	25	100	0	100
939	Mine Operatives, Mine Laborers (N.E.C.)	1,666	250	6	0	6	24	0	24
316	Meat Cutters, Exc. Slaughter & Paking House	353	400	10	1	11	44	0	44
952	Power Station Operators	52	60	1	0	1	4	0	4
904	Truck & Tractor Drivers	2,966	3,620	90	72	162	648	8	640
819	Welders & Flame Cutters	692	870	21	17	38	152	12	140
	Semiskilled Textile Occup.	4,441	4,360	218	-8	210	840	13	827

TABLE 11-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS[1] 1960	PROJECTED EMPLOYMENT[1] 1975	ANNUAL WITH-DRAWAL [2]	ANNUAL GROWTH [2]	ANNUAL DEMAND	4 YEAR DEMAND [3]	4 YEAR SUPPLY [4]	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
685	Knitters, Loopers, Toppers	16	20	0	0	0	0	0	0
689	Sewers & Stitchers, Mfg.	4,050	4,120	164	-4	160	80	13	67
682	Spinners, Textile	38	20	0	0	0	640	0	640
683	Weavers, Textile	337	200	20	0	20	0	0	0
	Other Operatives (N.E.C.)	12,955	14,880	922	-44	878	3,512	172	3,340
	SERVICE WORKERS, PRIVATE HOUSEHOLD	738	800	31	0	31	124	0	124
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	6,200	8,800	616	290	906	3,624	168	3,456
	Protective Service Workers	1,035	1,380	56	45	101	404	0	404
373	Firemen, Fire Protection	262	350	11	8	19	76	0	76
375	Policemen, Marshals	282	460	15	20	35	140	0	140
379	Guards, Watchmen	491	370	16	15	31	124	0	124
	Waiters, Cooks & Bartenders	2,147	3,080	335	107	442	1,768	0	1,768
312	Bartenders	531	680	20	18	38	152	0	152
314	Cooks	452	630	34	28	62	248	0	248
317	Counter & Fountain Workers	93	170	8	6	14	56	0	56
311	Kitchen Workers (N.E.C.)	366	500	23	19	42	168	0	168
311	Waiters & Waitresses	705	1,100	23	16	39	156	0	156
	Other Service Workers	3,018	4,340	243	125	368	1,472	167	1,305
355	Attendants, Hospital & Inst.	326	750	45	33	78	312	51	261
330	Barbers	273	380	9	3	12	48	7	41
381	Charwomen & Cleaners	430	530	26	5	31	124	0	124
332	Hairdressers & Cosmetologists	360	590	35	17	52	208	25	183
382	Janitors & Sextons	641	670	46	6	52	208	0	208
075	Practical Nurses	191	400	20	24	44	156	84	72
	Other Service Workers (N.E.C.)	797	1,020	33	37	70	280	1	279
	LABORERS, EXCLUDING FARM & MINE	3,233	3,100	77	-86	-9	-36	0	-36
	OCCUPATIONS NOT REPORTED	4,087							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Scranton Labor Market Area includes all of Lackawanna County.

TABLE 12

PENNSYLVANIA MANPOWER AND TRAINING DATA

Wilkes-Barre--Hazleton Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	121,920	140,500	4,523	1,226	6,237	23,300	11,604	11,696
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	10,468	17,000	493	680	1,173	3,044	1,791	1,253
	Engineers, Technical	589	970	24	38	62	248	90	158
002	Engineers, Aeronautical	0	0	0	0	0	0	0	0
008	Engineers, Chemical	11	20	0	0	0	0	21	-21
005	Engineers, Civil	140	220	0	0	0	0	0	0
003	Engineers, Electrical	103	180	4	7	11	44	12	32
012	Engineers, Industrial	61	120	3	4	7	28	0	28
007	Engineers, Mechanical	100	160	4	6	10	40	13	27
011	Engineers, Metallurgical	14	20	0	0	0	0	0	0
010	Engineers, Mining	51	30	0	1	1	4	0	4
	Engineers, Sales	33	40	1	1	2	8	0	8
	Other Engineers Technical	76	180	4	7	11	44	44	0
	Natural Scientists	73	140	3	5	8	0	6	-6
040	Agricultural Scientists	0	0	0	0	0	0	4	-4
041	Biological Scientists	4	10	0	0	0	0	-	-
022	Chemists	57	100	2	4	6	24	-	-
024	Geologists & Geophysicists	0	0	0	0	0	0	-	-
020	Mathematicians	4	10	0	0	0	0	-	-
023	Physicists	8	15	0	0	0	0	-	-
	Other Natural Scientists	0	5	0	0	0	0	2	-2
	Technicians Excl. Medical & Dental	375	670	20	30	50	200	412	-212
017	Designers	40	60	1	2	3	12	0	12
726	Electrical & Electronic	90	160	4	8	12	48	350	-302
193	Radio Operators	20	30	0	0	0	0	0	0
018	Surveyors	86	140	3	5	8	32	62	-30
	Technicians, Other	139	280	9	12	21	84	0	84
	Medical, Other Health Workers	2,877	5,000	155	200	355	1,044	83	961
	Chiropractors & Therapists	61	100	2	4	6	24	0	24
072	Dentists	200	270	6	10	16	64	-	-
077	Dietitians & Nutritionists	30	40	1	1	2	8	23	-45
075	Nurses, Professional	1,289	2,300	64	85	149	596	0	596
079	Nurses, Student	418	800	32	32	64	256	0	256
079	Optometrists	30	50	1	2	3	12	-	-
071	Osteopaths	0	10	0	0	0	0	-	-
074	Pharmacists	206	250	6	10	16	64	-	-
070	Physicians & Surgeons	426	650	16	27	43	172	-	-
045	Psychologists	24	50	1	2	3	12	-	-
079	Technicians, Medical & Dental	172	450	20	20	40	160	60	100
073	Veterinarians	21	30	0	1	1	4	-	-
	Teachers	3,280	4,250	148	212	360	140	0	140
092	Teachers, Elementary	1,852	2,100	79	86	165	660	-	-
091	Teachers, Secondary	934	1,300	44	49	93	282	-	-
099	Teachers, Other Excl. College	287	500	15	20	35	140	0	140
090	Teachers, College	207	350	10	14	24	96	-	-
	Social Scientists	11	25	0	1	1	0	0	-
050	Economists	3	5	0	0	0	0	-	-
020	Statisticians & Actuaries	8	15	0	0	0	0	0	0
059	Other Social Scientists	0	5	0	0	0	0	0	0
	Other Prof., Tech., & Kindred Workers	5,945	3,263	154	237	391	1,412	1,200	212
160	Accountants & Auditors	600	780	19	31	50	200	42	158
001	Architects	16	20	0	0	0	0	1	-1
017	Draftsmen	251	370	9	16	25	100	357	-257
110	Lawyers & Judges	278	330	8	13	21	84	-	-
166	Personnel & Labor Relation Wkrs.	112	180	4	7	11	44	-	-
195	Social & Welfare Workers (N.E.C.)	298	400	14	18	32	128	0	128
	Prof., Tech., Kindred Workers	1,708	3,865	96	150	246	984	800	184
421	FARMERS AND FARM WORKERS	1,289	900	31	-16	15	60	42	18
185	MANAGERS, OFFICIALS & PROPRIETORS	7,362	8,850	238	-35	203	812	480	332
200	CLERICAL & KINDRED WORKERS	13,378	18,500	647	444	1,091	4,364	6,397	-2,033
217	Accounting Clerks & Bkprs.	1,421	1,690	52	42	94	376	1,411	-1,035
212	Bank Tellers	243	430	14	10	24	86	0	86
211	Cashiers	685	1,240	47	29	76	304	0	304
219	Office Machine Operators	448	1,000	42	30	72	288	543	-255
232	Postal Clerks	262	260	6	6	12	48	0	48
237	Receptionists	138	190	7	5	12	48	0	48
201	Secretaries	1,422	2,050	86	65	151	604	2,735	-2,131
122	Shipping & Receiving Clerks	668	650	16	15	31	124	0	124

TABLE 12- CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960	PROJECTED EMPLOYMENT 1/ 1975	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND	4 YEAR DEMAND 3/	4 YEAR SUPPLY 4/	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
02	Stenographers	328	480	20	15	35	140	173	-33
3	Stock Clerks & Storekeepers	443	820	32	24	56	224	1	223
235	Telephone Operators	570	590	26	12	38	152	0	152
203	Typists	395	560	25	12	37	148	469	-321
209	Other Clerical & Kindred Workers	6,355	8,540	247	153	400	1,600	1,065	535
250	SALES WORKERS	9,358	11,500	358	138	496	1,984	370	1,614
258	Advertising Agents & Salesmen	45	60	1	0	1	4	311	-307
297	Demonstrators	8	10	0	0	0	0	3	-3
250	Insurance Agents, Brokers & Underwrters.	765	880	22	10	32	128	0	128
251	Real Estate Agents & Brokers	86	110	2	1	3	12	0	12
259	Stock & Bond Salesmen	34	40	0	0	0	0	0	0
	Other Sales Workers (N.E.C.)	8,420	10,450	323	125	448	1,792	56	1,736
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	14,857	19,500	546	390	936	3,744	1,541	2,203
	Construction Craftsmen	3,297	4,270	168	112	280	1,120	235	885
861	Brickmasons, Stone, Tile	245	280	14	4	18	72	2	70
860	Carpenters	1,058	1,200	71	34	105	420	62	358
820	Electricians	469	600	17	14	31	124	141	-17
850	Excavating, Grading Oprs.	340	550	14	24	38	152	1	151
840	Painters & Paperhangers	466	600	27	14	41	164	29	135
842	Plasters	66	90	2	0	2	8	0	8
862	Plumbers & Pipefitters	502	700	18	21	39	156	0	156
866	Roofers & Slaters	87	150	3	0	3	12	0	12
999	Structural Metal Workers	64	100	2	1	3	12	0	12
	Foremen, (N.E.C.)	2,360	3,100	77	31	108	432	0	432
	Metalwkrg. Craftsmen	1,218	1,350	3	54	87	348	452	-104
610	Blacksmiths, Forgemen, Hammermen	60	50	1	2	3	12	0	12
805	Boilermakers	96	1-0	2	1	3	0	0	0
504	Heat Treaters, Annealers	7	10	0	0	0	160	0	160
600	Machinists	811	900	22	18	40	12	295	-283
638	Millwrights	26	40	1	0	1	4	67	-63
804	Sheet Mtl. Wkrs.	119	150	3	1	4	16	74	-58
601	Toolmakers, Diemakers	91	100	2	4	6	24	16	8
	Mechanics & Repairmen	4,134	6,000	150	138	288	1,152	688	464
827	Air Condt. Heating & Refrigmen.	100	130	3	2	5	20	57	-37
621	Airplane	21	20	0	0	0	0	0	0
620	Motor Vehicles	1,312	1,680	42	50	92	368	384	-16
633	Office Machine Repairmen	72	140	3	8	11	44	0	44
720	Radio & TV Repairmen	188	250	6	7	13	52	100	-48
	Other Mechanics & Repairmen	2,441	3,780	90	52	142	568	147	421
	Printing Trades Craftsmen	604	570	14	2	16	64	33	31
650	Compositors & Typesetters	422	330	8	0	8	32	24	8
974-5	Electro & Stereotypers	15	20	0	0	0	0	0	0
971-2	Engravers & Lithographers	31	50	1	1	2	8	0	8
651	Pressmen & Plate Printers	136	170	4	1	5	20	9	11
	Other Craftsmen & Kindred Workers	3,244	4,210	101	58	159	636	133	503
526	Bakers	417	500	12	5	17	68	0	68
660	Cabinetmakers	126	140	3	2	5	20	43	-23
921	Cranesmen, Derrickmen, Hoistmen	172	240	6	4	10	40	0	40
168	Inspectors	287	410	10	4	14	56	0	56
700	Jewelers, Watchmkrs, Gold & Silversmiths	54	70	1	0	1	4	0	4
821	Linemen & Servicemen	479	580	14	8	22	88	1	87
628	Loom Fixers	99	80	2	0	2	8	0	8
711	Opticians, Lens Grinders & Polishers	57	70	1	0	1	4	0	4
777	Pattern & Model Mkrs., Except Paper	40	50	1	0	1	4	1	3
950	Stationary Engineers	303	350	8	1	9	36	2	34
780	Upholsters	186	260	6	3	9	36	85	-49
	Craftsmen (N.E.C.)	1,024	1,460	78	32	110	440	1	439
	OPERATIVES & KINDRED WORKERS	39,526	44,750	1,342	-402	940	3,760	518	3,242
	Apprentices	79	90	2	3	5	20	0	20
739	Assemblers	894	1,000	30	-75	-45	-180	0	-180
720	Checkers, Examiners & Inspectors, Mfg.	1,228	1,800	57	18	75	300	0	300
906	Deliverymen, Routemen, Cab Drivers	869	1,100	30	11	41	164	0	164
502	Furnacemen, Smeltermen & Pourers	44	40	1	0	1	4	0	4
504	Heaters, Metal	0	10	0	0	0	0	0	0
361	Laundry & Dry Cleaning	476	500	25	6	31	124	0	124
939	Mine Operatives, Mine Laborers (N.E.C.)	3,741	1,600	40	-3	37	148	0	148
316	Meat Cutters, Exc. Slaughter & Paking House	309	370	9	1	10	40	1	39
952	Power Station Operators	87	110	2	0	2	8	0	8
904	Truck & Tractor Drivers	3,203	4,000	100	80	180	720	37	683
819	Welders & Flame Cutters	1,085	1,400	35	28	63	242	120	122
	Semiskilled Textile Occup.	8,125	8,830	441	-17	424	1,696	248	1,448

TABLE 12-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960	PROJECTED EMPLOYMENT 1/ 1975	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND	4 YEAR DEMAND 3/	4 YEAR SUPPLY 4/	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
685	Knitters, Loopers, Toppers	40	50	2	0	2	8	19	-11
689	Sewers & Stitchers, Mfg.	7,630	8,330	333	-8	325	156	229	-73
682	Spinners, Textile	55	55	2	0	2	1,300	0	1,300
683	Weavers, Textile	400	395	39	0	39	8	0	8
	Other Operatives (N.E.C.)	19,386	23,900	1,481	-71	1,410	5,640	112	5,528
	SERVICE WORKERS, PRIVATE HOUSEHOLD	1,365	1,500	58	1	59	236	0	236
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	8,811	13,000	910	429	1,339	5,356	465	4,891
	Protective Service Workers	1,269	1,800	598	429	1,027	4,108	0	4,108
373	Firemen, Fire Protection	281	390	13	9	22	88	0	88
375	Policemen, Marshals	454	770	25	33	58	232	0	232
379	Guards, Watchmen	536	640	18	17	35	140	0	140
	Waiters, Cooks & Bartenders	3,181	4,160	500	160	660	2,640	64	2,576
312	Bartenders	811	1,070	32	28	60	240	0	240
314	Cooks	618	900	49	40	89	356	64	292
317	Counter & Fountain Workers	189	350	17	14	31	124	0	124
311	Kitchen Workers (N.E.C.)	499	700	32	26	58	232	0	232
311	Waiters & Waitresses	1,064	1,570	32	23	55	220	0	220
	Other Service Workers	4,361	6,610	277	145	422	1,688	376	1,312
355	Attendants, Hospital & Inst.	507	1,150	69	51	120	480	51	429
330	Barbers	276	400	10	4	14	56	7	49
381	Charwomen & Cleaners	461	600	30	6	36	144	0	144
332	Hairdressers & Cosmetologists	488	820	49	24	73	292	25	267
382	Janitors & Sextons	1,339	1,470	102	14	116	464	0	464
075	Practical Nurses	223	450	22	27	49	196	84	112
	Other Service Workers (N.E.C.)	1,067	1,720	56	63	119	476	25	451
	LABORERS, EXCLUDING FARM & MINE	5,242	4,950	123	-138	-15	-60	0	-60
	OCCUPATIONS NOT REPORTED	10,264							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Wilkes-Barre--Hazleton Labor Market Area includes Luzerne County.

TABLE 13

PENNSYLVANIA MANPOWER AND TRAINING DATA

York Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	115,692	150,000	5,601	1,543	7,144	26,952	7,464	19,488
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	9,542	17,000	493	680	1,173	3,068	903	2,165
	Engineers, Technical	1,054	2,150	53	85	138	552	78	474
002	Engineers, Aeronautical	4	6	0	0	0	0	0	0
008	Engineers, Chemical	16	30	0	1	1	4	5	-1
005	Engineers, Civil	169	310	7	11	18	72	0	72
003	Engineers, Electrical	165	350	8	15	23	92	0	92
012	Engineers, Industrial	176	420	9	16	25	100	0	100
007	Engineers, Mechanical	291	600	14	23	37	148	0	148
011	Engineers, Metallurgical	20	50	1	1	2	8	0	8
010	Engineers, Mining	0	0	0	0	0	0	0	0
	Engineers, Sales	128	180	4	6	10	40	16	24
	Other Engineers Technical	85	204	4	7	11	44	57	-13
	Natural Scientists	128	270	6	10	16	4	20	-16
040	Agricultural Scientists	6	10	0	0	0	0	19	-19
041	Biological Scientists	6	10	0	0	0	0	-	-
022	Chemists	103	200	3	7	10	40	-	-
024	Geologists & Geophysicists	0	0	0	0	0	0	-	-
020	Mathematicians	0	5	0	0	0	0	-	-
023	Physicists	0	5	0	0	0	0	-	-
	Other Natural Scientists	13	40	0	1	1	4	1	3
	Technicians Excl. Medical & Dental	610	1,270	38	56	94	376	128	248
017	Designers	144	300	8	11	19	76	0	76
726	Electrical & Electronic	86	160	4	8	12	48	128	-80
193	Radio Operators	16	20	0	0	0	0	0	0
018	Surveyors	34	75	1	2	3	12	0	12
	Technicians, Other	330	715	23	32	55	220	0	220
	Medical, Other Health Workers	1,610	3,050	94	121	215	740	65	675
	Chiropractors & Therapists	51	80	1	2	3	12	0	12
072	Dentists	127	170	3	6	9	36	-	-
077	Dietitians & Nutritionists	11	30	1	1	2	8	0	8
075	Nurses, Professional	762	1,700	44	58	102	408	16	392
079	Nurses, Student	105	260	10	10	20	80	0	80
079	Optometrists	23	35	0	1	1	4	-	-
071	Osteopaths	22	85	2	3	5	20	-	-
074	Pharmacists	66	80	1	2	3	12	-	-
070	Physicians & Surgeons	299	355	8	14	22	88	-	-
045	Psychologists	4	10	0	0	0	0	-	-
079	Technicians, Medical & Dental	109	300	29	29	58	232	49	183
073	Veterinarians	31	45	1	1	2	8	-	-
	Teachers	2,662	4,670	162	233	395	80	-	80
092	Teachers, Elementary	1,391	2,160	81	88	169	676	-	-
091	Teachers, Secondary	945	1,940	65	73	138	552	-	-
099	Teachers, Other Excl. College	167	300	9	11	20	80	0	80
090	Teachers, College	159	270	7	10	17	68	-	-
	Social Scientists	23	50	1	1	2	4	-	4
050	Economists	9	15	0	0	0	0	-	-
020	Statisticians & Actuaries	14	30	0	1	1	4	0	4
059	Other Social Scientists	0	5	0	0	0	0	-	-
	Other Prof., Tech., & Kindred Workers	3,455	5,540	116	179	295	1,312	612	700
160	Accountants & Auditors	568	950	23	37	60	240	10	230
001	Architects	15	30	0	1	1	4	0	4
017	Draftsmen	594	1,150	28	49	77	308	175	133
110	Lawyers & Judges	155	230	5	8	13	52	-	-
166	Personnel & Labor Relation Wkrs.	119	240	5	8	13	52	-	-
195	Social & Welfare Workers (N.E.C.)	82	190	6	7	13	52	0	52
	Prof., Tech., Kindred Workers	1,922	2,750	71	106	177	708	427	281
421	FARMERS AND FARM WORKERS	6,372	4,500	157	-81	76	304	375	-71
185	MANAGERS, OFFICIALS & PROPRIETORS	8,216	10,800	291	-42	249	996	166	830
200	CLERICAL & KINDRED WORKERS	13,474	20,400	714	489	1,203	4,812	4,061	751
217	Accounting Clerks & Bkprs.	999	1,280	39	31	70	280	903	-623
212	Bank Tellers	227	440	14	9	23	92	0	92
211	Cashiers	538	1,110	41	26	67	268	0	268
219	Office Machine Operators	268	720	29	21	50	200	382	-182
232	Postal Clerks	276	300	8	7	15	60	0	60
237	Receptionists	169	260	9	6	15	60	0	60
201	Secretaries	2,089	3,380	141	107	248	992	1,082	-90
222	Shipping & Receiving Clerks	637	690	17	16	33	132	0	132

TABLE 13-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960	PROJECTED EMPLOYMENT 1/ 1975	ANNUAL WITH-DRAWAL 2/	ANNUAL GROWTH 2/	ANNUAL DEMAND	4 YEAR DEMAND 3/	4 YEAR SUPPLY 4/	UNMET DEMAND
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
202	Stenographers	285	500	20	15	35	140	71	69
223	Stock Clerks & Storekeepers	535	1,200	48	36	84	336	16	320
235	Telephone Operators	444	480	21	9	30	120	0	120
203	Typists	615	980	43	22	65	260	364	-104
209	Other Clerical & Kindred Workers	6,392	9,060	262	162	424	1,696	1,243	453
250	SALES WORKERS	8,275	11,400	352	136	488	1,952	539	1,413
258	Advertising Agents & Sales men	46	70	1	0	1	4	476	-472
297	Demonstrators	43	60	1	0	1	4	5	-1
250	Insurance Agents, Brokers & Underwrters.	603	800	20	9	29	116	0	116
251	Real Estate Agents & Brokers	139	210	5	2	7	28	0	28
259	Stock & Bond Salesmen	29	40	0	0	0	0	0	0
	Other Sales Workers (N.E.C.)	7,415	10,220	316	122	438	1,752	58	1,694
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	18,103	24,900	697	498	1,195	4,780	750	4,030
	Construction Craftsmen	4,719	5,705	187	119	306	1,224	132	1,092
861	Brickmasons, Stone, Tile	650	740	37	11	48	192	19	173
860	Carpenters	1,642	1,750	53	25	78	312	91	221
820	Electricians	602	825	23	19	42	168	17	151
850	Excavating, Grading Oprs.	242	400	10	17	27	108	4	104
840	Painters & Paperhangers	682	750	33	14	47	188	1	187
842	Plast	104	140	2	0	2	8	0	8
862	Plumbers & Pipefitters	626	830	21	24	45	180	0	180
866	Roofers & Slaters	109	170	4	0	4	16	0	16
899	Structural Metal Workers	62	100	2	0	2	8	0	8
	Foremen, (N.E.C.)	2,878	4,260	106	42	148	592	0	592
	Metalwkrg. Craftsmen	2,224	2,660	65	106	171	684	321	363
610	Blacksmiths, Forgemen, Hammerman	58	50	1	0	1	4	0	4
805	Boilermakers	28	30	0	0	0	0	0	0
504	Heat Treaters, Annealers	56	60	1	1	2	8	0	8
600	Machinists	1,483	1,700	42	86	128	512	242	270
638	Millwrights	76	130	3	2	5	20	0	20
804	Sheet Mtl. Wkrs.	163	240	5	2	7	28	79	-51
601	Toolmakers, Diemakers	360	450	10	19	29	116	0	116
	Machanics & Repairmen	4,498	7,420	185	169	354	1,416	267	1,149
827	Air Condt. Heating & Refrigmen.	105	150	3	2	5	20	2	18
621	Airplane	51	60	1	0	1	4	0	4
620	Motor Vehicles	1,601	2,260	56	67	123	492	188	304
633	Office Machine Repairmen	53	110	2	6	8	32	9	23
720	Radio & TV Repairmen	145	240	6	4	10	40	2	38
	Other Mechanics & Repairmen	2,543	4,600	114	87	201	804	66	738
	Printing Trades Craftsmen	830	975	23	4	27	108	26	82
650	Compositors & Typesetters	541	520	13	0	13	52	18	34
974-5	Electro & Stereotypers	21	40	0	0	0	0	0	0
971-2	Engravers & Lithographers	50	83	1	1	2	8	0	8
651	Pressmen & Plate Printers	218	332	7	2	9	36	8	28
	Other Craftsmen & Kindred Workers	2,954	3,880	118	53	171	684	4	680
526	Bakers	357	360	8	3	11	44	0	44
660	Cabinetmakers	199	240	6	3	9	36	0	36
921	Cranesmen, Derrickmen, Hoistmen	191	320	7	4	11	44	0	44
168	Inspectors	91	200	4	1	5	20	0	20
700	Jewelers, Watchmkrs, Gold & Silversmiths	68	100	2	0	2	8	1	7
821	Linemen & Servicemen	385	530	11	7	20	80	0	80
628	Loom Fixers	121	140	3	0	3	12	0	12
711	Opticians, Lens Grinders & Polishers	40	60	1	0	1	4	0	4
777	Pattern & Model Mkrs., Except Paper	96	130	2	1	3	12	2	10
950	Stationary Engineers	238	270	6	1	7	28	1	27
780	Upholsters	167	270	5	3	8	32	0	32
	Craftsmen (N.E.C.)	1,101	1,260	67	26	93	372	0	372
	OPERATIVES & KINDRED WORKERS	33,283	41,000	1,833	-368	1,465	5,860	241	5,619
	Apprentices	216	280	6	11	17	68	0	68
739	Assemblers	1,565	2,100	62	-157	-95	-380	0	-380
720	Checkers, Examiners & Inspectors, Mfg.	1,289	2,320	73	22	95	380	0	380
906	Deliverymen, Routemen, Cab Drivers	1,198	1,470	40	14	54	216	0	216
502	Furnacemen, Smeltermen & Pourers	50	60	1	0	1	4	0	4
504	Heaters, Metal	12	20	0	0	0	0	0	0
361	Laundry & Dry Cleaning	542	600	29	7	36	144	2	142
939	Mine Operatives, Mine Laborers (N.E.C.)	162	150	3	0	3	12	0	12
316	Meat Cutters, Exc. Slaughter & Paking House	291	380	9	1	10	40	2	38
952	Power Station Operators	24	40	0	0	0	0	0	0
904	Truck & Tractor Drivers	3,286	4,700	117	93	210	840	2	838
819	Welders & Flame Cutters	1,163	1,860	46	36	82	328	32	296
	Semiskilled Textile Occup.	4,573	4,955	247	-9	238	952	21	931

TABLE 13-CONTINUED

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
685	Knitters, Loopers, Toppers	160	170	6	0	6	24	7	17
689	Sewers & Stitchers, Mfg.	3,856	4,200	360	-1	359	112	14	98
682	Spinners, Textile	57	65	2	0	2	1,436	0	1,436
683	Weavers, Textile	500	520	28	0	28	8	0	8
	Other Operatives (N.E.C.)	18,912	22,065	1,367	-65	1,302	5,208	182	5,026
	SERVICE WORKERS, PRIVATE HOUSEHOLD	1,888	2,500	96	2	98	392	0	392
	SERVICE WORKERS, EXCL. PRIVATE HOUSEHOLD	7,445	11,800	826	388	1,214	4,856	429	4,427
	Protective Service Workers	833	1,600	65	51	116	464	0	464
373	Firemen, Fire Protection	108	200	6	4	10	40	0	40
375	Policemen , Marshals	264	700	22	30	52	208	0	208
379	Guards, Watchmen	461	700	20	18	38	152	0	152
	Waiters, Cooks & Bartenders	3,280	5,010	549	174	723	2,892	15	2,877
312	Bartenders	279	400	11	10	21	84	0	84
314	Cooks	1,007	1,500	82	66	148	592	14	578
317	Counter & Fountain Workers	246	470	23	18	41	164	1	163
311	Kitchen Workers (N.E.C.)	365	540	13	10	23	608	0	608
311	Waiters & Waitresses	1,383	2,100	84	68	152	92	0	92
	Other Service Workers	3,332	5,190	275	143	418	1,672	333	1,339
355	Attendants, Hospital & Inst.	217	550	32	24	56	224	108	116
330	Barbers	176	290	6	2	8	32	7	25
381	Charwomen & Cleaners	242	420	20	3	23	92	0	92
332	Hairdressers & Cosmetologists	610	1,030	64	32	96	384	46	338
382	Janitors & Sextons	973	1,140	79	11	90	360	0	360
075	Practical Nurses	336	750	37	44	81	324	172	152
	Other Service Workers (N.E.C.)	778	960	31	34	65	260	81	179
	LABORERS, EXCLUDING FARM & MINE	5,640	5,700	142	-159	-17	-68	0	-68
	OCCUPATIONS NOT REPORTED	3,454							

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tommorrow's Manpower Needs: National Manpower Projections and a Guide to their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The York Labor Market Area includes the following counties: Adams and York.

TABLE 14

PENNSYLVANIA MANPOWER AND TRAINING DATA

Pottsville Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1/ 1960 (1)	PROJECTED EMPLOYMENT 1/ 1975 (2)	ANNUAL WITH-DRAWAL 2/ (3)	ANNUAL GROWTH 2/ (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND 3/ (6)	4 YEAR SUPPLY 4/ (7)	UNMET DEMAND (8)
	GRAND TOTAL	60,654	56,500	1,790	367	2,157	8,460	5,304	3,156
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	4,354	5,300	153	212	365	1,292	379	913
160	Accountants & Auditors	188	185	4	7	11	44	43	1
001	Architects	4	3	0	0	0	0	-	0
022	Chemists & Natural Scientists	65	90	2	3	5	20	8	12
017	Designers & Draftsmen	107	120	3	4	7	28	120	-92
005	Engineers: Civil	55	65	1	2	3	12	0	12
003	Electrical	31	40	1	1	2	8	13	-5
012	Industrial	48	70	1	2	3	12	0	12
007	Mechanical	25	30	0	1	1	4	0	4
019	Other Engineers, Technical	109	160	4	6	10	40	6	34
110	Lawyers & Judges	104	95	2	3	5	20	-	-
166	Personnel & Labor Relations Workers	25	30	0	1	1	4	-	-
195	Social & Welfare Workers	45	65	2	2	4	16	-	16
	Social Scientists	4	5	0	0	0	0	-	-
018	Surveyors	34	40	1	1	2	8	0	8
079	Technicians: Medical & Dental	99	195	6	7	13	52	102	-50
726	Electrical & Electronic	8	10	0	0	0	0	92	-92
799	Other Eng. & Pys. Sc. (Incl. Other, N.E.C.)	131	205	6	9	15	60	0	-
	Other Professional, Technical & Kindred Wks.	3,272	3,892	101	155	256	1,024	250	774
185	MANAGERS, OFFICIALS & PROP. INCL. FARM	4,370	3,575	96	-14	82	328	217	111
200	CLERICAL AND KINDRED WORKERS	5,605	5,910	206	141	347	1,388	3,346	-1,958
217	Bookkeepers	524	480	14	12	26	104	719	-615
211	Cashiers	279	385	14	9	23	92	0	92
219	Office Machine Operators	25	40	1	1	2	8	193	-185
201	Secretaries	723	795	33	25	58	232	1,259	-1,027
222	Shipping & Receiving Clerks	229	170	4	4	8	32	201	-169
202	Stenographers	170	190	7	6	13	52	91	-39
223	Stock Clerks & Storekeepers	124	170	6	5	11	44	5	39
235	Telephone Operators	233	185	8	3	11	44	0	44
203	Typists	204	220	9	5	14	56	222	-166
209	Other Clerical & Kindred Workers	3,094	3,275	94	58	152	608	656	-48
250	SALES WORKERS	3,965	3,790	117	45	162	648	107	541
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	7,902	7,430	200	141	341	1,364	514	850
610	Blacksmiths, Forgemen & Hammermen	23	15	0	0	0	0	0	0
805	Boilermakers	16	10	0	0	0	0	0	0
660	Cabinetmakers & Patternmakers	46	40	1	0	1	4	0	4
860	Carpenters	616	475	23	7	30	120	112	8
921	Cranemen, Derrickmen & Hoistmen	178	185	4	3	7	28	0	28
821	Electricians	272	240	6	5	11	44	56	-12
	Foremen (N.E.C.)	1,118	1,125	28	11	39	156	0	156
600	Machinists & Job Setters	369	270	6	14	20	80	85	-5
	Mechanics & Repairmen	2,341	2,700	67	62	129	516	180	336
638	Millwrights	24	20	0	0	0	0	0	0
862	Plumbers & Pipe Fitters	257	240	6	7	13	52	26	26
650	Printing Craftsmen	177	130	3	0	3	12	9	3
950	Stationary Engineers	197	150	3	0	3	12	0	12
804	Tinsmiths, Coppersmiths & Sheet Metal Wks.	24	20	0	0	0	0	24	-24
601	Toolmakers, Die Makers & Setters	95	70	1	3	4	16	0	16
	Other Craftsmen & Kindred Workers	2,149	1,740	41	24	65	260	0	260
	OPERATIVES AND KINDRED WORKERS	23,869	22,525	675	-202	473	1,892	489	1,403
	Apprentices	57	50	1	2	3	12	0	12
739	Assemblers	342	290	8	-21	-13	-52	0	-52
720	Checkers, Examiners & Inspectors	236	265	8	2	10	40	0	40
502	Furnacement, Smeltermen & Heaters	59	40	1	0	1	4	0	4
689	Sewers & Stitchers, Manufacturing	5,074	4,700	470	4	474	1,896	187	1,709
904	Truck Drivers & Deliverymen	2,833	2,720	68	54	122	488	0	488
812	Welders & Flame-Cutters	547	545	13	10	23	92	0	92
	Other Operative & Kindred Workers	14,721	13,915	862	-41	821	3,284	302	2,982
	SERVICE WORKERS, INCL. PRIVATE HOUSEHOLD	4,741	5,350	278	117	395	1,580	252	1,328
381	Charwomen, Janitors & Porters	716	720	36	7	43	172	0	172
376	Guards, Watchmen	230	210	6	5	11	44	0	44
359	Other Service Workers	3,795	4,420	185	97	282	1,128	252	876
	LABORERS, INCLUDING FARM	3,686	2,620	65	-73	-8	-32	0	-32
	OCCUPATIONS NOT REPORTED	2,162							

(See footnotes page 73)

TABLE 14-Continued

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/ Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January 1969).

2/ Columns (3) and (4) derived using withdrawal and growth rates found in Tomorrow's Manpower Needs: National Manpower Projections and a Guide to Their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/ Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

3/ Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Pottsville Labor Market Area includes Schuylkill County.

TABLE 15

PENNSYLVANIA MANPOWER AND TRAINING DATA

Uniontown-Connellsville Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1960 (1)	PROJECTED EMPLOYMENT 1975 (2)	ANNUAL WITHDRAWAL (3)	ANNUAL GROWTH (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND (6)	4 YEAR SUPPLY (7)	UNMET DEMAND (8)
	GRAND TOTAL	45,903	41,000	1,312	363	1,675	6,684	5,589	1,095
	PROFESSIONAL, TECHNICAL & KINDRED WORKERS	3,993	4,570	132	182	314	1,240	537	703
160	Accountants & Auditors	149	140	3	5	8	32	11	21
001	Architects	16	15	0	0	0	0	0	0
022	Chemists & Natural Scientists	34	45	1	1	2	8	6	2
017	Designers & Draftsmen	109	120	3	4	7	28	254	-226
005	Engineers: Civil	72	80	2	3	5	20	0	20
003	Electrical	32	40	1	1	2	8	0	8
012	Industrial	55	75	1	3	4	16	0	16
007	Mechanical	35	40	1	1	2	8	0	8
-19	Other Engineers, Technical	92	130	3	5	8	32	3	29
110	Lawyers & Judges	56	50	1	2	3	12	-	-
166	Personnel & Labor Relations Workers	21	25	0	1	1	4	-	-
195	Social & Welfare Workers	31	45	1	2	3	12	0	12
	Social Scientists	0	5	0	0	0	0	-	-
018	Surveyors	42	45	1	1	2	8	0	8
079	Technicians: Medical & Dental	53	100	3	4	7	28	190	-162
726	Electrical & Electronic	8	10	0	0	0	0	103	-103
799	Other Eng. & Phys. Sc. (Incl. Other, N.E.C.)	87	130	4	5	9	36	1	35
	Other Professional, Technical & Kindred Wks.	3,101	3,475	90	139	229	916	308	608
185	MANAGERS, OFFICIALS & PROP. INCL. FARM	3,774	3,000	81	-12	69	276	236	40
200	CLERICAL AND KINDRED WORKERS	4,477	4,400	154	105	259	1,036	2,851	-1,815
217	Bookkeepers	498	440	13	11	24	96	722	-626
211	Cashiers	351	465	17	11	28	112	0	112
219	Office Machine Operators	40	65	2	1	3	12	240	-228
201	Secretaries	592	625	26	20	46	184	1,001	-817
222	Shipping & Receiving Clerks	76	55	1	1	2	8	46	-38
202	Stenographers	53	60	2	1	3	12	145	-133
223	Stock Clerks & Storekeepers	169	230	9	6	15	60	3	57
235	Telephone Operators	157	120	5	2	7	28	1	27
203	Typists	106	130	5	2	7	28	182	-154
209	Other Clerical & Kindred Workers	2,435	2,210	64	39	103	412	511	-99
250	SALES WORKERS	3,805	3,230	100	38	138	552	152	400
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	6,972	6,620	178	125	303	1,212	516	696
610	Blacksmiths, Forgemen & Hammermen	23	10	0	0	0	0	0	0
805	Boilermakers	4	3	0	0	0	0	0	0
660	Cabinetmakers & Patternmakers	40	35	1	0	1	4	0	4
860	Carpenters	437	425	21	6	27	108	78	30
921	Cranemen, Derrickmen & Hoistmen	269	270	6	4	10	40	0	40
821	Electricians	246	220	6	5	11	44	89	-45
	Foremen (N.E.C.)	834	820	20	8	28	112	0	112
600	Machinists & Job Setters	365	255	6	13	19	76	58	18
	Mechanics & Repairmen	2,178	2,425	60	55	115	460	251	209
638	Millwrights	56	50	1	1	2	8	0	8
862	Plumbers & Pipe Fitters	146	130	3	3	6	24	0	24
650	Printing Craftsmen	138	100	2	0	2	8	0	8
950	Stationary Engineers	155	115	2	0	2	8	0	8
804	Tinsmiths, Coppersmiths & Sheet Metal Wks.	28	25	0	0	0	0	0	0
601	Toolmakers, Die Makers & Setters	66	50	1	2	3	12	15	-3
	Other Craftsmen & Kindred Workers	1,987	1,687	40	23	63	92	25	67
	OPERATIVES AND KINDRED WORKERS	12,631	11,460	343	-103	240	960	958	2
	Apprentices	69	60	1	2	3	12	0	12
739	Assemblers	114	145	4	-10	-6	-24	0	-24
720	Checkers, Examiners & Inspectors	533	580	18	5	23	92	0	92
502	Furnacemen, Smeltermen, & Heaters	160	110	2	-1	1	4	0	4
689	Sewers & Stitchers, Manufacturing	566	440	44	0	44	176	600	-424
904	Truck Drivers & Deliverymen	1,812	1,725	43	34	77	308	1	307
812	Welders & Flame-Cutters	419	430	10	8	18	72	345	-273
	Other Operative & Kindred Workers	8,958	7,970	494	-23	471	1,884	12	1,872
	SERVICE WORKERS, INCL. PRIVATE HOUSEHOLD	4,501	4,890	254	107	361	1,444	339	1,105
381	Charwomen, Janitors & Porters	760	740	37	7	44	176	0	176
376	Guards, Watchmen	175	155	4	4	8	32	0	32
359	Other Service Workers	3,566	3,995	167	87	254	1,016	472	544
	LABORERS, INCLUDING FARM	4,164	2,830	70	-79	-9	-36	0	-36
	OCCUPATIONS NOT REPORTED	1,786							

(See footnotes page 75)

TABLE 15
CONTINUED

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg, Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January 1969)

2/Columns (3) and (4) derived using withdrawal and growth rates found in Tomorrow's Manpower Needs: National Manpower Projections And a Guide to Their Use as a Tool in Developing State and Area Manpower Projections, Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual classifications will not in all cases sum to equal the sub-occupational classification.

4/Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degrees. No adjustment was made on the supply of graduates entering the labor force.

Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Uniontown-Connellsville Labor Market Area includes Fayette County.

TABLE 16

PENNSYLVANIA MANPOWER AND TRAINING DATA

Williamsport Labor Market Area
July 1, 1966 to June 30, 1970

DOT CODE	OCCUPATIONAL CLASSIFICATION	CENSUS 1960 (1)	PROJECTED EMPLOYMENT 1975 (2)	ANNUAL WITHDRAWAL (3)	ANNUAL GROWTH (4)	ANNUAL DEMAND (5)	4 YEAR DEMAND (6)	4 YEAR SUPPLY (7)	UNMET DEMAND (8)
	GRAND TOTAL	40,593	50,000	1,612	518	2,130	8,476	5,433	3,043
	PROFESSIONAL TECHNICAL & KINDRED WORKERS	3,752	6,000	174	240	414	1,612	1,543	69
160	Accountants & Auditors	155	210	5	8	13	52	27	25
001	Architects	16	20	0	0	0	0	44	-44
022	Chemists & Natural Scientists	41	80	2	3	5	20	34	-14
017	Designers & Draftsmen	189	300	9	12	21	84	209	-125
005	Engineers: Civil	68	110	2	4	6	24	47	-23
003	Electrical	52	90	2	3	5	20	0	20
012	Industrial	60	120	3	4	7	28	0	28
007	Mechanical	64	100	2	4	6	24	29	-5
019	Other Engineers, Technical	117	235	5	9	14	56	94	-38
110	Lawyers & Judges	82	105	2	4	6	24	-	-
166	Personnel & Labor Relations Workers	50	85	2	3	5	20	-	-
195	Social & Welfare Workers	16	30	1	1	2	8	0	8
	Social Scientists	4	7	0	0	0	0	-	-
018	Surveyors	17	30	0	1	1	4	0	4
079	Technicians: Medical & Dental	77	210	6	8	14	56	377	-321
726	Electrical & Electronic	20	40	1	2	3	12	270	-258
799	Other Eng. & Phy. Sc. (Incl. Other, N.E.C.)	62	130	4	5	9	36	103	-67
	Other Professional, Technical & Kindred Wks.	2,662	4,098	106	163	269	1,076	962	114
185	MANAGERS, OFFICIALS & PROP. INCL. FARM	3,598	4,030	108	-16	92	368	185	183
200	CLERICAL AND KINDRED WORKERS	5,254	7,210	252	173	425	1,700	2,344	-644
217	Bookkeepers	387	485	15	12	27	108	462	-354
211	Cashiers	211	400	15	9	24	96	0	96
219	Office Machine Operators	47	110	4	3	7	28	84	-56
201	Secretaries	831	1,255	52	40	92	368	615	-247
222	Shipping & Receiving Clerks	247	250	6	6	12	48	0	48
202	Stenographers	209	320	13	10	23	92	81	11
223	Stock Clerks & Storekeepers	215	415	16	12	28	112	5	107
235	Telephone Operators	221	240	10	5	15	60	0	60
203	Typists	203	300	13	6	19	76	231	-155
209	Other Clerical & Kindred Workers	2,683	3,435	99	61	160	640	866	-226
250	SALES WORKERS	2,806	3,580	110	42	152	608	6	602
	CRAFTSMEN, FOREMEN & KINDRED WORKERS	5,989	7,500	202	142	344	1,376	978	398
610	Blacksmiths, Forgemen & Hammermen	9	7	0	0	0	0	0	0
805	Boilermakers	28	28	0	0	0	0	0	0
660	Cabinetmakers & Patternmakers	119	148	4	2	6	24	17	7
860	Carpenters	345	365	18	5	23	92	90	2
921	Cranemen, Derrickmen & Hoistmen	68	100	2	1	3	12	0	12
821	Electricians	189	230	6	5	11	44	56	-12
	Foremen (N.E.C.)	978	1,350	33	13	46	184	0	184
600	Machinists & Job Setters	460	460	11	24	35	140	191	-51
	Mechanics & Repairmen	1,561	2,475	61	56	117	468	354	114
638	Millwrights	15	20	0	0	0	0	0	0
862	Plumbers & Pipe Fitters	161	210	5	6	11	44	14	30
650	Printing Craftsmen	190	195	4	0	4	16	9	7
950	Stationary Engineers	136	145	3	0	3	12	0	12
804	Tinsmiths, Coppersmiths & Sheet Metal Wks.	147	180	4	1	5	20	28	-8
601	Toolmakers, Die Makers & Setters	123	122	3	5	8	32	0	32
	Other Craftsmen & Kindred Workers	1,460	1,465	35	20	55	220	224	-4
	OPERATIVES AND KINDRED WORKERS	10,744	13,000	390	-117	273	1,092	73	1,019
	Apprentices	23	30	0	1	1	4	0	4
739	Assemblers	572	670	20	-50	-30	-120	0	-120
720	Checkers, Examiners & Inspectors	350	540	17	5	22	88	0	88
502	Furnacemen, Smeltermen & Heaters	8	8	0	0	0	0	0	0
689	Sewers & Stitchers, Manufacturing	1,216	1,350	135	1	136	544	0	544
904	Truck Drivers & Deliverymen	1,212	1,590	39	31	70	280	0	280
812	Welders & Flame-Cutters	213	290	7	5	12	48	5	43
	Other Operative & Kindred Workers	7,150	8,522	528	-25	503	2,012	68	1,944
	SERVICE WORKERS, INCL. PRIVATE HOUSEHOLD	3,842	5,940	308	130	438	1,752	304	1,448
381	Charwomen, Janitors & Porters	562	780	39	7	46	184	0	184
376	Guards, Watchmen	192	245	7	6	13	52	0	52
359	Other Service Workers	3,088	4,915	206	108	314	1,256	304	952
	LABORERS, INCLUDING FARM	2,839	2,740	68	-76	-8	-32	0	-32
	OCCUPATIONS NOT REPORTED	1,769							

(See footnotes page 77)

TABLE 16
CONTINUED

N.E.C. - Abbreviation for Not Elsewhere Classified.

1/Columns (1) and (2) derived from 1960 Census and 1970, 1975 Projected Total Employment by Occupation by Residence, Harrisburg Pennsylvania: Department of Labor and Industry, Bureau of Employment Security, Research and Statistics Division, January, 1969)

2/Columns (3) and (4) derived using withdrawal and growth rates found in Tomorrow's Manpower Needs: National Manpower Projection and a Guide to Their Use as a Tool in Developing State and Area Manpower Projections. Bulletin No. 1606, (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics; February, 1969). Because of rounding error, individual occupational classifications will not in all cases sum to equal the sub-occupational and major occupational classifications.

4/Column (7) includes graduates from educational institutions offering preparatory programs for training students who will enter full-time skilled employment upon completion of their occupational program. Graduates from the following educational institutions were included in the supply statistics: (1) Public Secondary Vocational and Technical Schools, (2) Community Colleges, (3) Private Trade and Technical Schools, (4) Private Business Schools, (5) State Trade and Technical Schools, (6) Manpower Development Training Programs, (7) State Retraining Programs, (8) Two-Year Programs in Four-Year Colleges and Universities, and (9) Private Junior Colleges. An occupational education graduate was considered as one who completed his training in a less than baccalaureate degree program. Hence, the supply column does not include graduates receiving baccalaureate, graduate and professional degree. No adjustment was made on the supply of graduates entering the labor force.

3/Column (6) is an adjusted four-year demand. Those occupations which require a four-year college degree were not included in determining the four-year demand.

The Williamsport Labor Market Area includes Lycoming County.

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